



ALU 
STAR

GRÖMO



PRODUCT CATALOGUE

* The coloured aluminium roof drainage system

GRÖMO

One step ahead of the rain



ALU
STAR

GRÖMO



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INSPIRED BY NATURE

* The coloured aluminium roof drainage system



Original destination: Schrecksee

Made in the Allgäu, Made in Germany. For over 135 years.

Our origins and influences have a major impact on how we think and act. It is therefore no surprise that our developments are inspired by nature in the Allgäu region. The white of the snow-covered peaks, the moss green of the weathered granite rocks, the bright blue of the mountain lakes and the dark earth that smells of cool forests – these and other impressions of our home region inspire us in the development of GRÖMO ALUSTAR products.



FREEDOM OF DESIGN

* Space for products inspired by nature



Show your colours with GRÖMO ALUSTAR

Choose between eight beautiful natural colours or a further 206 RAL special colours on request. Decide on a surface finish: matt textured or silk gloss. GRÖMO ALUSTAR, the complete drainage range made of paint-coated aluminium, is characterised by the highest quality and precision fit; it is durable and lightweight.

COMPLETE PACKAGE WITH SYSTEM

Gutters, downpipes and strip material made of coated aluminium

With GRÖMO ALUSTAR, GRÖMO provides you with the complete roof drainage system from a single source, from the gutter to the downpipe to the accessories: made of paint-coated aluminium and in premium quality.

Because everything comes from a single source, a perfect fit is guaranteed. This saves manpower, equipment and handling, or in short: effort and time. GRÖMO ALUSTAR is available in eight colours, two surfaces and in half round and box shapes. DUOFALZ sheet metal strips and cut plates round off the product range.

IN HARMONY

* The coloured aluminium roof drainage system



WORLD OF COLOUR

ALU 
STAR
GRÓMO

* Inspired by nature



RAL 7016

ANTHRACITE



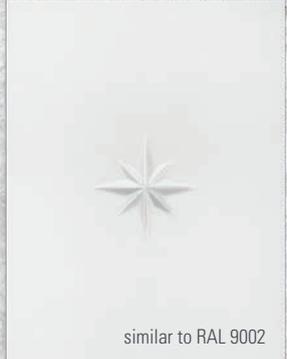
similar to RAL 9005

JET BLACK



similar to RAL 7005

LIGHT GREY



similar to RAL 9002

WHITE



similar to RAL 8019

TESTA DI MORO



RAL 6005

MOSS GREEN



similar to RAL 8004

BRICK RED



RAL 3009

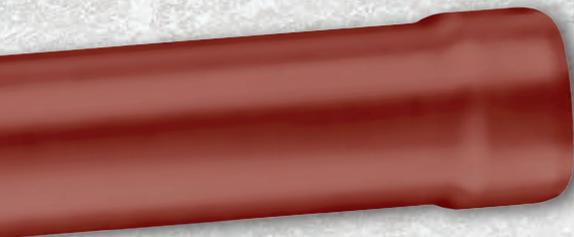
OXIDE RED



RAL colour range

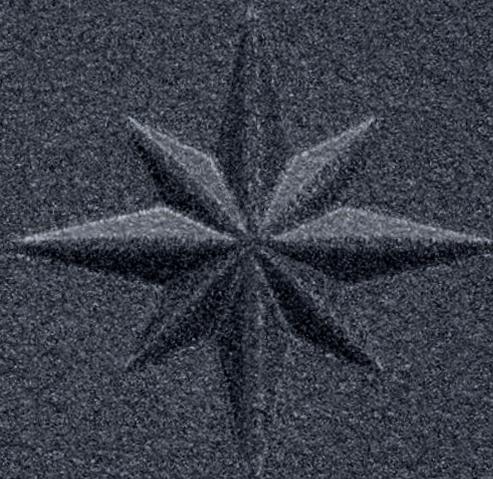
CUSTOM COLOURS





SURFACES

Matt textured or silk gloss. Whether as a unit with windows and doors or as an accent. With the GRÖMO ALUSTAR surfaces, TX and SX, you have a further option to give your roof drainage system an unmistakable appearance.





TX surface

- Textured surface with a noble, matt appearance
- Highly resistant to UV, colour and weather resistant
- Highly scratch- and abrasion resistant



SX surface

- Smooth surface with an elegant, silk gloss lustre appearance
- Wide range of colours
- Good colour-resistance

SURFACE	TX	SX
● Anthracite (RAL 7016)	✦	✦
● Jet black (-RAL 9005)	✦	—
● Light grey (-RAL 7005)	✦	✦
○ White (-RAL 9002)	—	✦
● Testa di Moro (-RAL 8019)	✦	✦
● Moss green (RAL 6005)	—	✦
● Brick red (-RAL 8004)	—	✦
● Oxide red (RAL 3009)	—	✦
● RAL custom colours	—	✦



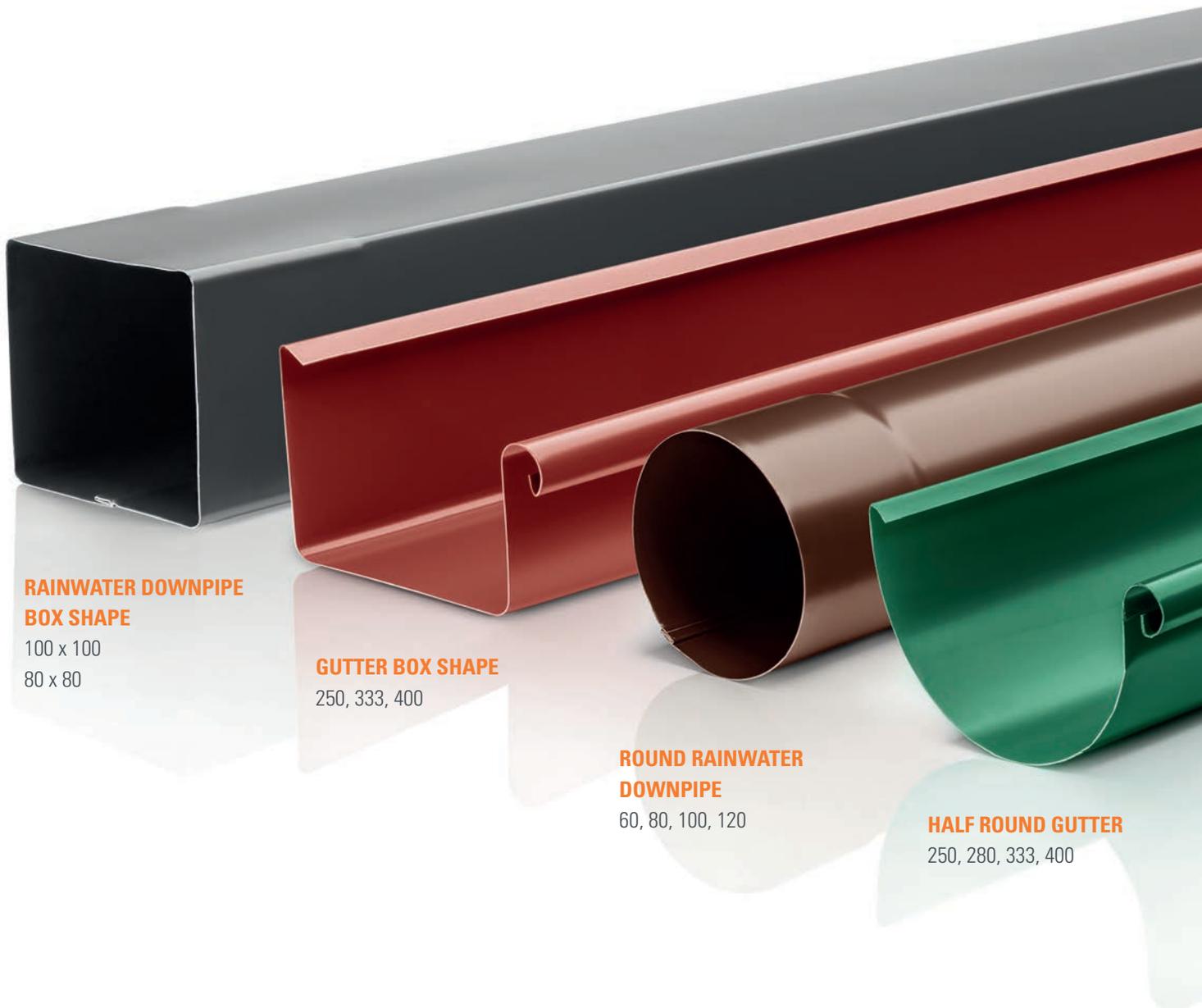
SHAPING DIVERSITY

 Perfectly coordinated



Source: Hanse Haus

Source: Hanse Haus



**RAINWATER DOWNPIPE
BOX SHAPE**

100 x 100
80 x 80

GUTTER BOX SHAPE

250, 333, 400

**ROUND RAINWATER
DOWNPIPE**

60, 80, 100, 120

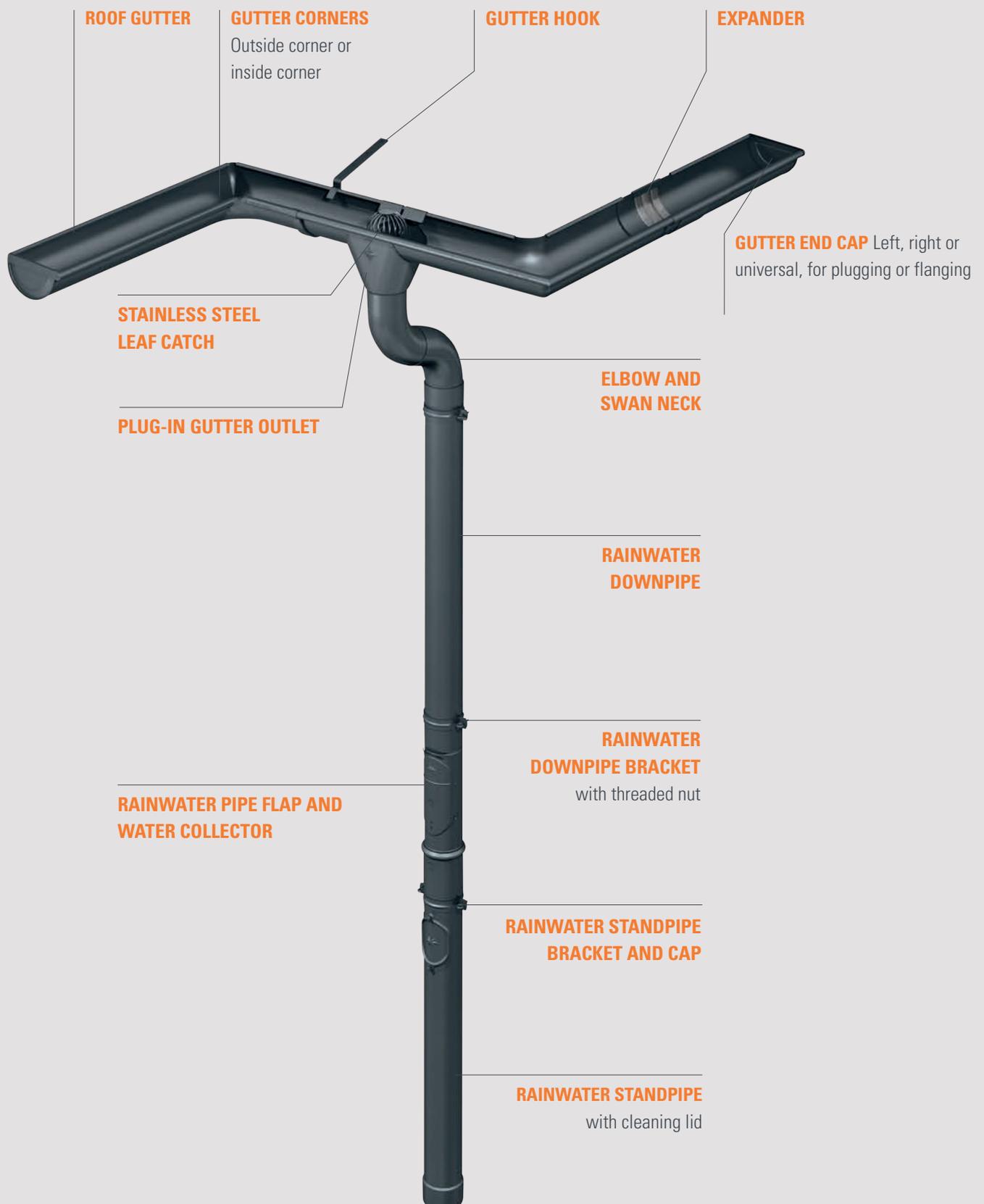
HALF ROUND GUTTER

250, 280, 333, 400

PRODUCT OVERVIEW

Whether steep roof, flat roof, classic, modern or puristic. With the GRÖMO ALUSTAR product range we offer you a wide range of options to realize your requirements and wishes for roof drainage. Our shapes and colours allow countless combinations that offer the optimum solution both functionally and aesthetically!

THE GRÖMO ALUSTAR SYSTEM HALF ROUND/ROUND



THE GRÖMO ALUSTAR SYSTEM BOX SHAPE



THE POWER OF PERFECT BALANCE

GRÖMO ALUSTAR: Aluminium core

Corrosion-free, easy to form and not half as heavy as alternative metals of the same strength: these are the product characteristics that make aluminium so popular for roof drainage in particular.



NORM

According to DIN EN 485



DENSITY

2.70 kg/dm³



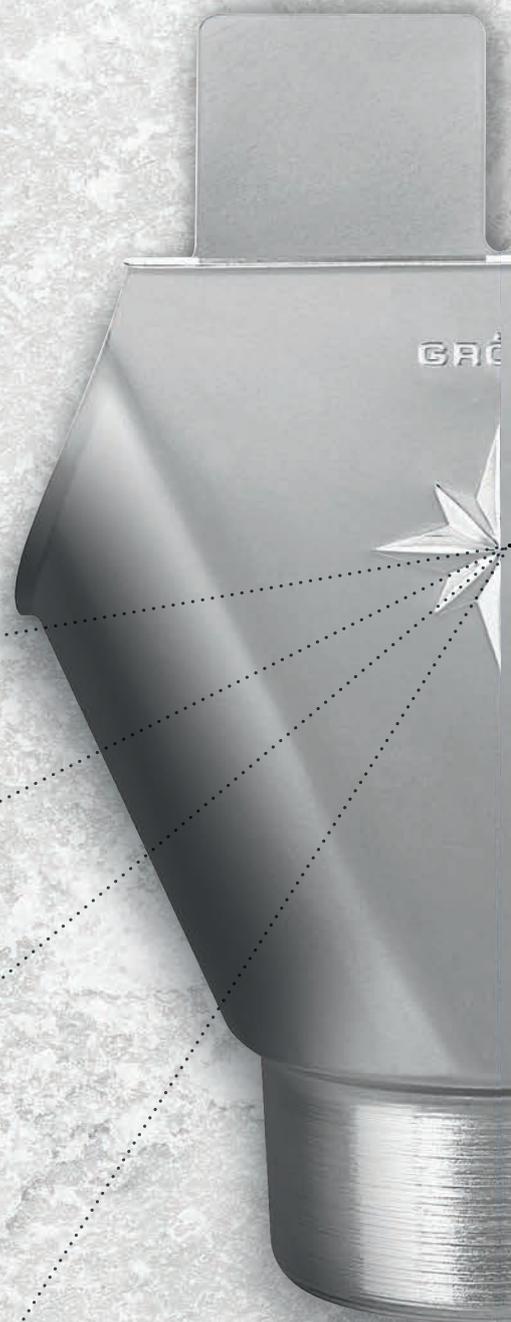
CHANGE IN LENGTH

at 100 K: 2.4 mm/m



MELTING POINT:

659 °C





LIGHTWEIGHT



**ENVIRONMENTALLY
KIND**



HIGH STABILITY



EASY PROCESSING



WEATHER-RESISTANT

GRÖMO ALUSTAR products: Multilayered

Provided with a tough coating, GRÖMO ALUSTAR products have an extremely resistant surface. This meets with the highest requirements for UV resistance and the increasing environmental influences. In short: GRÖMO ALUSTAR for all wind and weather.

IN GOOD SHAPE

* DUOFALZ sheet metal strips and cut plates

SURFACE	TX/SX
● Anthracite (RAL 7016)	
● Jet black (-RAL 9005)	
● Dark grey (-DB 703)	
● Grey aluminium (-RAL 9007)	
● Light grey (-RAL 7005)	
● Silver metallic (-RAL 9006)	
○ White (-RAL 9002)	
● Testa di Moro (-RAL 8019)	
● Moss green (RAL 6005)	
● Brick red (-RAL 8004)	
● Oxide red (RAL 3009)	

FRONT

TX coating, 30 µm

BACK

Same colour SX coating, 25 µm

CARRIER MATERIAL

Aluminium 0.7 mm



The DUOFALZ aluminium sheet metal strips and cut plates have been specially developed for use on roofs and facades. Alloying, coating and elasticity are optimised for use in sheet metal technology and guarantee the best possible processing results.

DUOFALZ can be used on both sides and combines the two surfaces, SX and TX, in one product. DUOFALZ thus offers the greatest possible flexibility as well as a wide range of applications!



HIGHLY FLEXIBLE



EXTREMELY WEATHER-RESISTANT



LIGHTWEIGHT



EASY PROCESSING



STRIP WIDTH
500, 650, 1000 mm



SHEET SIZES
1000 x 2000/3000 mm



MATERIAL QUALITY
EN AW 3005 H41 (fold quality)



WEIGHT
1,89 kg/m²

Detailed warranty conditions can be found on our website at www.groemo.com.

duofalz



40-YEAR
GUARANTEE ✨



SOURCE OF INSPIRATION



* GRÖMO ALUSTAR Object references

Let us inspire you! Discover the diverse possibilities of GRÖMO ALUSTAR roof drainage with our project references.



PEAK PERFORMANCE



* GRÖMO ALUSTAR. Quality that convinces.



GUARANTEED QUALITY

To ensure that you will always be certain to receive the quality we promise, we do not compromise when it comes to selecting our suppliers or in the coating, testing and inspection of our products. Strict controls, complete documentation of all work processes, continuous improvement and regular training of employees form the basis of the GRÖMO quality standard.

STANDARD-COMPLIANT COMPONENTS

Our GRÖMO ALUSTAR roof drainage components are manufactured according to the Euro-Norm 612 standard. All specifications required by the standard, such as material thickness or cuts, are fulfilled and, in some cases, even exceeded. That is what the GRÖMO star stands for as a quality and trademark.





DETAILS FOR EASY INSTALLATION

Ingenious product details, high accuracy of fit, and highly functional precision work ensure fast, easy, and secure installation of our GRÖMO ALUSTAR components.

HIGH AVAILABILITY AND SHORT PRODUCTION TIMES

The GRÖMO ALUSTAR range is immediately available from stock in all standard colours and sizes.

GRÖMO ALUSTAR products in secondary and custom colours are made to order. Thanks to our short production times, fast delivery is also guaranteed here.



ROUTE PLANNER

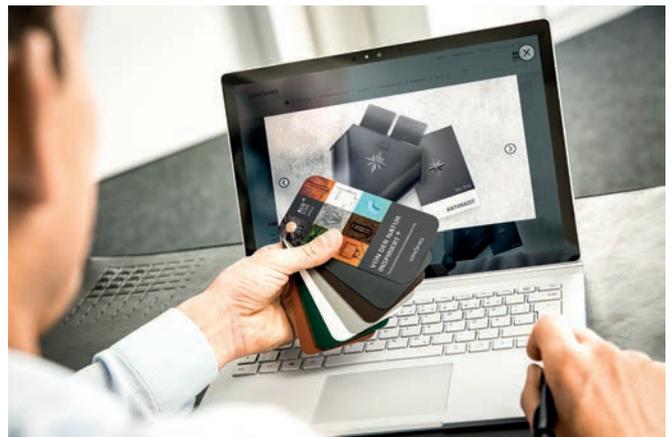
* All-round care with the GRÖMO service

Our first-class products are only one half of our entrepreneurial success. The other half is based on personalised advice, professional support and a wide range of services.

COLOUR & MATERIAL SAMPLES

Take a look for yourself

Our high-quality colour sample fans and material samples make your decision easier. Request your personalised samples easily and conveniently via our website.



COLOUR CONFIGURATOR

More creative freedom

In our colour configurator, you can quickly and easily see in advance how the GRÖMO ALUSTAR roof drainage system works as a whole, which colour combinations harmonise with each other and which colour could also suit your building.

DIMENSIONED PRODUCT DRAWINGS

For easier planning

We provide dimensional drawings and CAD data of GRÖMO products on our website. This significantly shortens time-consuming planning phases, as you can continue working with the information immediately. All important product dimensions can be seen at a glance.





ASSEMBLY INSTRUCTIONS AND VIDEOS

User-friendly information

Instructions and videos for quick and easy installation of the paint-coated aluminium products are available for download on our website and on YouTube. The individual work steps for a permanent and secure adhesive bond are described, explained and illustrated in detail.

ONLINE SEMINARS

Mastering challenges

The industry is facing ever more challenges – extreme weather conditions, new laws, standards, materials, production techniques, etc. At the same time, new opportunities are opening up.

Deepen your knowledge so you can optimally master the tasks of tomorrow. At GRÖMO, we want to help you stay one step ahead. In our online seminars, we share our knowledge with you and give you practical tips and support.



TECHNICAL ADVICE

For questions about the products

Do you have general or technical questions about our products and their use or about installation in accordance with the relevant technical regulations?

Our application engineers will provide you with fast, uncomplicated assistance.

Application technology

Telephone: +49 8342 912-532

WhatsApp: +49 8342 912-532

E-mail: service@groemo.de

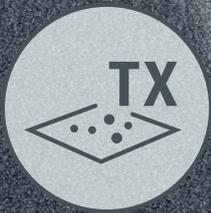
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GRÖMO ALUSTAR - TX SURFACE

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TX SURFACE

- Textured surface with a noble, matt appearance
- Highly resistant to UV, colour and weathering
- Highly scratch- and abrasion resistant



GRÖMO ALUSTAR GUTTER, HALF ROUND 3 M

Nenngröße	250	280	333	400
● Anthracite	89001	89011	89021	89031
● Jet black	89008	89018	89028	89038
● Light grey	89003	89013	89023	89033
● Testa di Moro	89002	89012	89022	89032

With protective film



GRÖMO ALUSTAR GUTTER, HALF ROUND 5 M

Nenngröße	250	280	333	400
● Anthracite	89041	89051	89061	89071
● Jet black	89048	89058	89068	89078
● Light grey	89043	89053	89063	89073
● Testa di Moro	89042	89052	89062	89072

With protective film



GRÖMO ALUSTAR GUTTER, BOX SHAPE 3 M

Nenngröße	250	333	400
● Anthracite	89301	89311	89321
● Jet black	89308	89318	89328
● Light grey	89303	89313	89323
● Testa di Moro	89302	89312	89322

With protective film



GRÖMO ALUSTAR GUTTER, BOX SHAPE 5 M

Nenngröße	250	333	400
● Anthracite	89331	89341	89351
● Jet black	89338	89348	89358
● Light grey	89333	89343	89353
● Testa di Moro	89332	89342	89352

With protective film



GRÖMO ALUSTAR GUTTER HOOK HALF ROUND

Nenngröße	250 23x7	280 28x7	333 28x7	400 30x7
● Anthracite	89601	89611	89621	89671
● Jet black	89608	89618	89628	89678
● Light grey	89603	89613	89623	89673
● Testa di Moro	89602	89612	89622	89672

See technical data sheet for dimensions



GRÖMO ALUSTAR GUTTER HOOK HALF ROUND LONG

Nenngröße	280 28x7	333 28x7
● Anthracite	89651	89661
● Light grey	89653	89663
● Testa di Moro	89652	89662

See technical data sheet for dimensions



GRÖMO ALUSTAR GUTTER HOOK BOX SHAPE

Nenngröße	250 23x7	333 28x7	400 30x7
● Anthracite	89701	89711	89721
● Jet black	89708	89718	89728
● Light grey	89703	89713	89723
● Testa di Moro	89702	89712	89722

See technical data sheet for dimensions



GRÖMO ALUSTAR FASCIA BRACKET HALF ROUND

Nenngröße	250 28x7	280 28x7	333 28x7
● Anthracite	89731	89741	89751
● Jet black	89738	89748	89758
● Light grey	89733	89743	89753
● Testa di Moro	89732	89742	89752

See technical data sheet for dimensions



GRÖMO ALUSTAR FASCIA BRACKET BOX SHAPE

Nenngröße	250 28x7	333 28x7
● Anthracite	89271	89281
● Jet black	89278	89288
● Light grey	89273	89283
● Testa di Moro	89272	89282

See technical data sheet for dimensions



GRÖMO ALUSTAR GUTTER CORNER - EXTERIOR CORNER - 90° - HALF ROUND

Nenngröße	250	280	333	400
● Anthracite	88101	88111	88121	88131
● Jet black	88108	88118	88128	88138
● Light grey	88103	88113	88123	88133
● Testa di Moro	88102	88112	88122	88132

Deep-drawn



GRÖMO ALUSTAR GUTTER CORNER - INTERIOR CORNER - 90° - HALF ROUND

Nenngröße	250	280	333	400
● Anthracite	88001	88011	88021	88031
● Jet black	88008	88018	88028	88038
● Light grey	88003	88013	88023	88033
● Testa di Moro	88002	88012	88022	88032

Deep-drawn



GRÖMO ALUSTAR GUTTER CORNER - EXTERIOR CORNER - 90° - BOX SHAPE

Nenngröße	250	333	400
● Anthracite	88151	88171	88181
● Jet black	88158	88178	88188
● Light grey	88153	88173	88183
● Testa di Moro	88152	88172	88182

Soldered



GRÖMO ALUSTAR GUTTER CORNER - INTERIOR CORNER - 90° - BOX SHAPE

Nenngröße	250	333	400
● Anthracite	88051	88071	88081
● Jet black	88058	88078	88088
● Light grey	88053	88073	88083
● Testa di Moro	88052	88072	88082

Soldered



GRÖMO ALUSTAR PLUG-IN GUTTER END CAP HALF ROUND LEFT

Nenngröße	250	280	333	400
● Anthracite	88401	88411	88421	88431
● Jet black	88408	88418	88428	88438
● Light grey	88403	88413	88423	88433
● Testa di Moro	88402	88412	88422	88432

With mortise groove for easy installation



GRÖMO ALUSTAR PLUG-IN GUTTER END CAP HALF ROUND RIGHT

Nenngröße	250	280	333	400
● Anthracite	88441	88451	88461	88471
● Jet black	88448	88458	88468	88478
● Light grey	88443	88453	88463	88473
● Testa di Moro	88442	88452	88462	88472

With mortise groove for easy installation



GRÖMO ALUSTAR GUTTER END CAP BOX SHAPE UNIVERSAL

Nenngröße	250	333	400
● Anthracite	89801	89811	89821
● Jet black	89808	89818	89828
● Light grey	89803	89813	89823
● Testa di Moro	89802	89812	89822

To hems



GRÖMO ALUSTAR GUTTER EXPANDER - WITH COVER - HALF ROUND

Nenngröße	280	333	400
● Anthracite	89211	89221	89231
● Jet black	89218	89228	89238
● Light grey	89213	89223	89233
● Testa di Moro	89212	89222	89232

Vulcanised on both sides



GRÖMO ALUSTAR GUTTER EXPANDER - WITH COVER - BOX SHAPE

Nenngröße	333	400
● Anthracite	89251	89261
● Jet black	89258	89268
● Light grey	89253	89263
● Testa di Moro	89252	89262

Vulcanised on both sides



LEAF SIEVE

Nenngröße	60	75-80	100	120
● Galvanised steel	51003			
● Stainless steel		54004	54006	54007



GRÖMO ALUSTAR PLUG-IN GUTTER OUTLET OVAL - HALF ROUND GUTTER

Nenngröße	250 60	250 80	280 80	280 100	333 80	333 100	333 120	400 100	400 120
● Anthracite	88201	88211	88221	88231	88241	88251	88261	88281	88271
● Jet black		88218	88228		88248	88258		88288	88278
● Light grey	88203	88213	88223	88233	88243	88253	88263	88283	88273
● Testa di Moro	88202	88212	88222	88232	88242	88252	88262	88282	88272

Butt welded, with spring clip for easy mounting



GRÖMO ALUSTAR PLUG-IN GUTTER OUTLET - BOX SHAPE GUTTER - ROUND PIPE

Nenngröße	250 80	333 100	400 120
● Anthracite	88301	88311	88321
● Jet black	88308	88318	88328
● Light grey	88303	88313	88323
● Testa di Moro	88302	88312	88322

Roll seam welded, with loop for hooking in



GRÖMO ALUSTAR PLUG-IN GUTTER OUTLET - BOX SHAPE GUTTER - BOX SHAPE PIPE

Nenngröße	250 80x80	333 80x80	333 100x100
● Anthracite	88331	88341	88351
● Jet black	88338	88348	88358
● Light grey	88333	88343	88353
● Testa di Moro	88332	88342	88352

Soldered



GRÖMO ALUSTAR OUTLET SPOUT BOX-SHAPED

Nenngröße	80
● Anthracite	88541
● Jet black	88548
● Light grey	88543
● Testa di Moro	88542



GRÖMO ALUSTAR FLAT ROOF HOPPER WITHOUT INFLOW

Nenngröße	100
● Anthracite	88861
● Light grey	88863
● Testa di Moro	88862

Height: 390 mm, width: 242 mm, depth: 150 mm



GRÖMO ALUSTAR FLAT ROOF HOPPER, CUBIC, WITHOUT INFLOW

Nenngröße	80	100
● Anthracite	88901	88871
● Jet black	88908	88878
● Light grey	88903	88873
● Testa di Moro	88902	88872

Height: 200 mm, width: 200 mm, depth: 200 mm



GRÖMO ALUSTAR FLAT ROOF HOPPER, CUBIC, WITHOUT INFLOW

Nenngröße	80	100
● Anthracite	88881	88891
● Jet black	88888	88898
● Light grey	88883	88893
● Testa di Moro	88882	88892

Height: 185 mm, width: 180 mm, depth: 160 mm



GRÖMO ALUSTAR DESIGN FLAT-ROOF HOPPER

Nenngröße	80	100	120
● Anthracite	88911	88921	88931
● Jet black	88918	88928	88938

Nominal size 76-80: Height: 210 mm, width: 210 mm, depth: 140 mm
 Nominal size 87 -100: Height: 300 mm, width: 300 mm, depth: 160 mm
 Nominal size 120: Height: 360 mm, width: 360 mm, depth: 180 mm





GRÖMO ALUSTAR HOPPER, CUBIC ECCENTRIC

Nenngröße	80	100	120
● Anthracite	88801	88811	88821
● Jet black	88808	88818	88828
● Light grey	88803	88813	88823
● Testa di Moro	88802	88812	88822

Height: 283 mm, width: 240 mm, depth: 240 mm



GRÖMO ALUSTAR HOPPER, CUBIC ECCENTRIC WITH OVERFLOW PIPE

Nenngröße	80	100	120
● Anthracite	88831	88841	88851
● Light grey	88833	88843	88853
● Testa di Moro	88832	88842	88852

Height: 283 mm, width: 240 mm, depth: 240 mm



TPE SEAL

Nenngröße	
○ Other	50945

Seal 3 m length, for installation in hoppers, for safe drainage of rainwater in attic seals



GRÖMO ALUSTAR PIPE ELBOW 40°

Nenngröße	60	80	100	120
● Anthracite	88601 ²	88611 ¹	88621 ¹	88631 ¹
● Jet black		88618 ¹	88628 ¹	88638 ¹
● Light grey	88603 ²	88613 ¹	88623 ¹	88633 ¹
● Testa di Moro	88602 ²	88612 ¹	88622 ¹	88632 ¹

¹ Butt-welded with indent

² Roll seam welded, without indent



GRÖMO ALUSTAR PIPE ELBOW 72°

Nenngröße	60	80	100	120
● Anthracite	88501 ²	88511 ¹	88521 ¹	88531 ¹
● Jet black		88518 ¹	88528 ¹	88538 ¹
● Light grey	88503 ²	88513 ¹	88523 ¹	88533 ¹
● Testa di Moro	88502 ²	88512 ¹	88522 ¹	88532 ¹

¹ Butt-welded with indent

² Roll seam welded, without indent



GRÖMO ALUSTAR PIPE ELBOW 85°

Nenngröße	60	80	100
● Anthracite	88561 ²	88571 ¹	88581 ¹
● Jet black		88578 ¹	88588 ¹
● Light grey	88563 ²	88573 ¹	88583 ¹
● Testa di Moro	88562 ²	88572 ¹	88582 ¹

¹ Butt-welded with indent

² Roll seam welded, without indent



GRÖMO ALUSTAR SQUARE PIPE ELBOW 72°

Nenngröße	80x80	100x100
● Anthracite	88591	88551
● Jet black	88598	88558
● Light grey	88593	88553
● Testa di Moro	88592	88552

Material thickness 0.6 mm due to production



GRÖMO ALUSTAR SWAN NECK

Nenngröße	80	100	120
● Anthracite	88651	88661	88671
● Jet black	88658	88668	88678
● Light grey	88653	88663	88673
● Testa di Moro	88652	88662	88672



GRÖMO ALUSTAR RAINWATER DOWNPIPE, ROUND 3 M

Nenngröße	60	80	100	120
● Anthracite	89401	89411	89421	89431
● Jet black		89418	89428	89438
● Light grey	89403	89413	89423	89433
● Testa di Moro	89402	89412	89422	89432

With protective film



GRÖMO ALUSTAR RAINWATER DOWNPIPE, BOX SHAPE 2 M

Nenngröße	80x80	100x100
● Anthracite	89491	89441
● Jet black	89498	89448
● Light grey	89493	89443
● Testa di Moro	89492	89442

Without protective film



GRÖMO ALUSTAR RAINWATER PIPE FLAP WITH STAINLESS STEEL SIEVE

Nenngröße	80	100	120
● Anthracite	88731	88741	88751
● Jet black	88738	88748	88758
● Light grey	88733	88743	88753
● Testa di Moro	88732	88742	88752

Regularly clean sieve and remove in winter due to risk of frost!



GRÖMO ALUSTAR DESIGN WATER COLLECTOR



Nenngröße	80	100
● Anthracite	88941	88771
● Jet black	88948	88778
● Light grey	88943	88773
● Testa di Moro	88942	88772

Incl. hose set, consisting of 1" hose with a length of 33 cm and barrel connector



ERSATZTEIL: HOSE WITH CONNECTORS FOR DESIGN WATER COLLECTOR

Nenngröße	80-100
○ Other	50943

ERSATZTEIL: SEALING CAP

Nenngröße	1"
○ Other	50944



GRÖMO ALUSTAR WATER COLLECTOR

Nenngröße	80	100	120
● Anthracite	88701	88711	88721
● Jet black			88728
● Light grey	88703	88713	88723
● Testa di Moro	88702	88712	88722

Including hose set consisting of 1" hose (for NG 76-100: Length 33 cm / for NG 120: Length 24 cm) and barrel connector

ERSATZTEIL: HOSE WITH CONNECTORS

Nenngröße	76-120
○ Other	50942

ERSATZTEIL: SEALING CAP

Nenngröße	76-120
○ Other	50939

Suitable for aluminium water collectors



HOSE FOR WATER COLLECTOR

Nenngröße	1"
○ Other	50948

In a roll with a length of 5 metres. Suitable for all water collectors with 1" hose



DESIGN-RAIN BARREL



Nenngröße	650x750x860	650x750x860 - Set
● Anthracite	88761 ²	88781 ¹

¹ Consisting of side panelling, sliding cover and GRAF square 300 litre plastic rain barrel. Dimensions of designer rain barrel (L x W x H): 770 x 650 x 860 mm

² Consisting of side panelling and sliding cover. Suitable for GRAF plastic rain barrel square 300 litres. Dimensions of designer rain barrel (L x W x H): 770 x 650 x 860 mm





GRÖMO ALUSTAR FLAT-ROOF BRANCH

Nenngröße	75 80	75 100	110 100	110 120
● Anthracite	89121	89131	89151	89141
● Jet black	89128	89138	89158	89148
● Light grey	89123	89133	89153	89143
● Testa di Moro	89122	89132	89152	89142

Includes pre-mounted inflow seal



GRÖMO ALUSTAR FLAT-ROOF BRANCH BOX-SHAPE

Nenngröße	75 80x80	75 100x100	110 100x100
● Anthracite	89964	89971	89981
● Jet black	89967	89974	89984
● Light grey	89966	89973	89983
● Testa di Moro	89965	89972	89982

Includes pre-mounted inflow seal



GRÖMO ALUSTAR BALCONY BRANCH 87.5° BOX-SHAPE

Nenngröße	75 80x80	75 100x100
● Anthracite	89975	89960
● Jet black	89978	89963
● Light grey	89977	89962
● Testa di Moro	89976	89961

Includes pre-mounted inflow seal



GRÖMO ALUSTAR DOWNPIPE BRANCH 72°

Nenngröße	80 60	80 80	100 60	100 80	100 100	120 80	120 100	120 120
● Anthracite	89551	89501	89511	89521	89531	89561	89571	89581
● Jet black		89508		89528	89538			
● Light grey	89553	89503	89513	89523	89533	89563	89573	89583
● Testa di Moro	89552	89502	89512	89522	89532	89562	89572	89582

Also available with other bracket, diameter, double branch, or Y-branch upon request



GRÖMO ALUSTAR STANDPIPE CAP

Nenngröße	80 116	100 116	100 150	120 150
● Anthracite	89451	89461	89471	89481
● Jet black	89458	89468	89478	89488
● Light grey	89453	89463	89473	89483
● Testa di Moro	89452	89462	89472	89482



GRÖMO ALUSTAR SLIDING SLEEVE

Nenngröße	80	100
● Anthracite	89761	89771
● Light grey	89763	89773
● Testa di Moro	89762	89772



GRÖMO ALUSTAR CONNECTION SLEEVE (PIPE CONNECTOR)

Nenngröße	80	100	120
● Anthracite	89161	89171	89181
● Jet black	89168	89178	89188
● Light grey	89163	89173	89183
● Testa di Moro	89162	89172	89182



GRÖMO ALUSTAR CONNECTION SLEEVE WITH SEAL

Nenngröße	75	110
	80	100
<input checked="" type="radio"/> Anthracite	89195	89196

Includes pre-mounted inflow seal

ERSATZTEIL: LIP SEAL RING

Nenngröße	75
<input type="radio"/> Other	50949

Suitable for all flat roof branches except UGINOX Patina K41



GRÖMO ALUSTAR DESIGN DOWNPIPE BRACKET WITH THREADED NUT M10

Nenngröße	100
<input checked="" type="radio"/> Anthracite	89941
<input checked="" type="radio"/> Jet black	89948
<input type="radio"/> Light grey	89943
<input checked="" type="radio"/> Testa di Moro	89942



ERSATZTEIL: SCREW WITH LOCK WASHER

Nenngröße	100
<input checked="" type="radio"/> Stainless steel	54330



GRÖMO ALUSTAR DOWNPIPE BRACKET WITH THREADED NUT M10

Nenngröße	60	80	100	120
<input checked="" type="radio"/> Anthracite	89831	89841	89851	89861
<input checked="" type="radio"/> Jet black		89848	89858	89868
<input type="radio"/> Light grey	89833	89843	89853	89863
<input checked="" type="radio"/> Testa di Moro	89832	89842	89852	89862

For connecting to SPI dowel, hanger bolt, or thermo stop



GRÖMO ALUSTAR DOWNPIPE BRACKET, SQUARE, WITH THREADED NUT M10

Nenngröße	80x80	100x100
● Anthracite	89781 ¹	89791 ²
● Jet black	89788 ¹	89798 ²
● Light grey	89783 ¹	89793 ²
● Testa di Moro	89782 ¹	89792 ²

¹ For connecting to SPI dowel, hanger bolt, or thermo stop. Threaded nut, galvanised

² Made from galvanised steel. For connecting to SPI dowel, hanger bolt, or thermo stop. Threaded nut, galvanised. Also suitable for fixing the square standpipe



HANGER BOLT M10

Nenngröße	M10 100	M10 140	M10 200	M10 250	M10 290
● Stainless steel	54313	54314	54315	54316	54317

With spanner flat



BASEPLATE WITH THREADED NUT M8/M10

Nenngröße	M8 M10
● Stainless steel	54219



THERMO STOP

Nenngröße	M10
● Stainless steel	50211

Prevents thermal bridge between hanger bolt and pipe bracket



STG PIPE BRACKET SUPPORT

Nenngröße	80-120	120-160	160-200	200-240	240-320
● Stainless steel	54240 ¹	54241 ¹	54242 ¹	54243 ¹	54244 ²

¹ Mounting solution for pipe brackets with thermal insulation systems. In Austria, obtainable from Likunet company in Gänserndorf

² Mounting solution for pipe brackets with thermal insulation systems, 2 pieces. In Austria, obtainable from Likunet company in Gänserndorf



SPI PIPE BRACKET PLUG

Nenngröße	M10 130	M10 260	M10 330
● Stainless steel	50236	50237	50238

Can be used with building height up to 8 m. If building height is over 8 m, follow the accepted rules of technology of the plumber/roofer trade!



DOWNPIPE STOPGAP

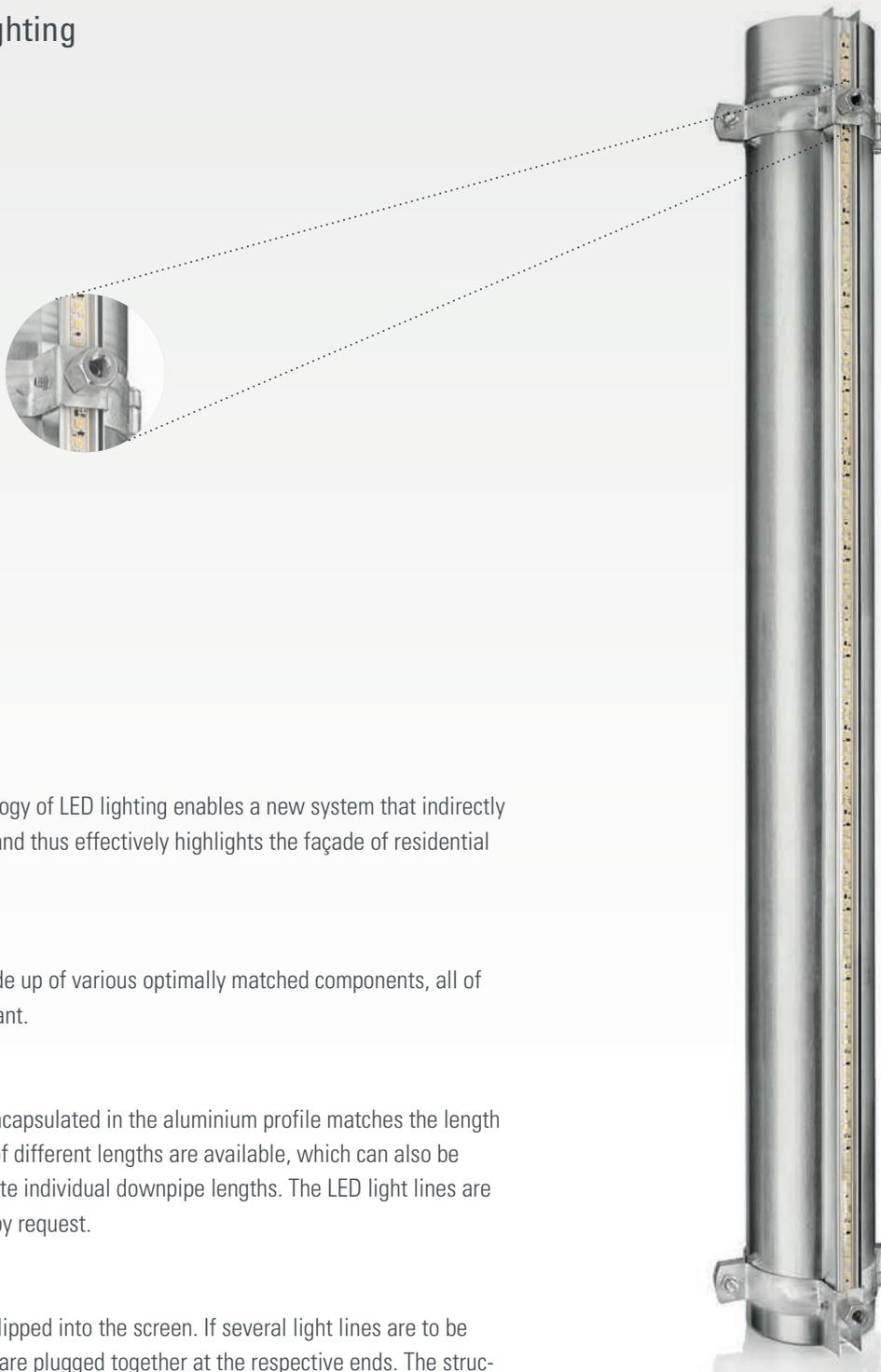
Nenngröße	60-120 8	60-120 100
<input type="radio"/> Other	50921 ¹	50920 ²

¹ Roll length 8 m. Compatible with downpipe diameter 120 mm

² Roll length 100 m. Compatible with downpipe diameter 120 mm

SKY LIGHTS

* The LED downpipe lighting



The constantly advancing technology of LED lighting enables a new system that indirectly backlights rainwater downpipes and thus effectively highlights the façade of residential buildings or industrial halls.

Elegant and durable

The LED downpipe lighting is made up of various optimally matched components, all of which are weather and UV-resistant.

Made to fit

To ensure that the LED lighting encapsulated in the aluminium profile matches the length of the downpipe, LED light lines of different lengths are available, which can also be combined with each other to create individual downpipe lengths. The LED light lines are also available in special lengths by request.

Simple installation

The LED linear lights are simply clipped into the screen. If several light lines are to be combined, the cable connections are plugged together at the respective ends. The structure can then be mounted on the downpipe using a specially designed downpipe bracket.

Up to the sky

There are virtually no limits to the range of applications for the innovative GRÖMO LED lighting system. With one supply line, it can be installed up to a maximum height of 11.5 metres, or nearly twice that with two supply lines. Depending on the ballast and control unit, the light sources can be integrated into the house control system and individual accents can be set.



DOWNPIPE BRACKET



The downpipe bracket specially developed for the LED downpipe lighting has a U-shaped extension into which the linear lights and screen are inserted and fastened with a hexagon socket threaded pin. The downpipe bracket thus ensures uninterrupted, visually pleasing and durable fixing of the LED lighting to the downpipe.

COVER

The aluminium profiles of the LED linear lights are mounted in a cover made of a U-shaped metal profile by clipping them into place. The cover fulfils three functions: The profile conceals the technical details and thus ensures the desired appearance. It protects against the weather and serves as a fastener to fix the LED linear lights to the downpipe bracket.



CONNECTING SLEEVE



The connecting sleeve enables a seamless transition between the screens of the individual light lines. Simply pushed over the joints, it fixes the screens in place, ensuring thermally induced length compensation and an appealing continuous look.

LED LINEAR LIGHT

VarioLED™ IP67 are fully encapsulated, linear LED light lines in an aluminium profile with excellent heat dissipation. A clear polyurethane encapsulation protects them from moisture, dust, dirt and UV radiation. They therefore comply with protection class IP67. The light lines are supplied ready to plug in with a mini IP67 connector at both ends. The integrated HYDRA PRO SW LED strips are single-channel, dimmable strips for 24V constant voltage with an output of 4 W/m (380 lumens) and a colour temperature of approx. 6,700 K. The stimulating, cool white light ensures radiant brightness and good colour rendering on the façade. The linear light sources are robust and have an average service life of around 60,000 hours.



CONNECTION CABLE

The LED linear light is connected to the ballast or control unit via the two metre long cable with mini IP67 socket.

SILICONE PROTECTIVE CAP

The top cable plug is sealed with the protective cap to protect it from the weather and as a safety measure.



MOUNTING BRACKETS AND RIVETS

In order to additionally stabilise the LED light lines for individual special lengths, additional mounting brackets can be fixed to the desired position on the screen using rivets.

ORDER INFORMATION

Six different lengths of LED linear lights are available to ensure that the LED lighting encapsulated in the aluminium profile matches the length of the downpipe. The standard version with 2,894 mm is designed for a three metre long downpipe. There are five other length versions for shorter downpipes. Numerous different LED lengths can be implemented by using them individually or in combination.

The following table provides an overview of the possible LED lighting lengths and the required products and quantities that can be implemented with the available standard LED linear lights. If these lengths are not sufficient due to the structural conditions, customised special lengths are available by request.

	VarioLED 207 mm	VarioLED 332 mm	VarioLED 519 mm	VarioLED 957 mm	VarioLED 1,957 mm	VarioLED 2,894 mm	Downpipe bracket	Cover	Connecting sleeve	Connection cable	Protective cap	Mounting bracket	Blind rivet
Lighting length* [mm]	86942	86943	86944	86945	86946	86941	50281 50282 89871 89872	62908 89873	62909 89874	86949	86948	84908	84909
242	1						1	1	1	1	1		
367		1					2	1	1	1	1		
484	2						2	1	1	1	1	1	1
554			1				2	1	1	1	1	1	1
609	1	1					2	1	1	1	1	1	1
734		2					2	1	1	1	1		
796	1		1				2	1	1	1	1	1	1
921		1	1				2	1	1	1	1	2	1
992				1			2	1	1	1	1		
1108			2				2	1	1	1	1	2	1
1234	1			1			2	1	1	1	1	1	1
1359		1		1			2	1	1	1	1	1	1
1476	2			1			2	1	1	1	1	2	1
1546			1	1			2	1	1	1	1	2	1
1601	1	1		1			2	1	1	1	1	2	1
1726		2		1			2	1	1	1	1	2	1
1788	1		1	1			2	1	1	1	1	2	1
1913		1	1	1			3	1	1	1	1	2	1
1992					1		3	1	1	1	1		
2100			2	1			3	1	1	1	1	3	1
2234	1				1		3	1	1	1	1		
2359		1			1		3	1	1	1	1		
2476	2				1		3	1	1	1	1	1	1
2546			1		1		3	1	1	1	1	1	1
2601	1	1			1		3	1	1	1	1	1	1
2726		2			1		3	1	1	1	1	1	1
2788	1		1		1		3	1	1	1	1	1	1
2929						1	3	1	1	1	1		
3000						1	3	1	1	1	1		

* A distance of 35 mm is provided between the LED linear lights for the plug-in connection to each other and at the end. When planning the lighting lengths, it must be ensured that the linear lights are at least 150 mm away from the water-bearing level (local conditions must be taken into account!).



LED LINEAR LIGHT

Nominal size	207	332	519	957	1957	2894	Sonderlänge
<input type="radio"/> Other	86942	86943	86944	86945	86946	86941	86947



CONNECTION CABLE

Nominal size	
<input type="radio"/> Other	86949



SILICONE PROTECTIVE CAP

Nominal size	
<input type="radio"/> Other	86948



MOUNTING BRACKET FOR LED LINEAR LIGHT

Nominal size	90
<input type="radio"/> Other	84908





BLIND RIVET 4X6 MM FOR MOUNTING BRACKET

Nominal size

4x6

Other

84909

Packet, 100 pcs





GRÖMO ALUSTAR RAINWATER STANDPIPE 1.0 M - WITH CLEANING LID

Nominal size	80	100	120
● Anthracite	89361	89371	89381
● Jet black	89368	89378	89388
● Light grey	89363	89373	89383
● Testa di Moro	89362	89372	89382

Made from galvanised steel. Fits directly on all common sewage pipes. No additional connectors necessary!



GRÖMO ALUSTAR RAINWATER STANDPIPE SQUARE 1.0 M - WITH CLEANING LID

Nominal size	100x100
● Anthracite	89391
● Jet black	89398
● Light grey	89393
● Testa di Moro	89392

Made from galvanised steel. Without seal element, with preformed connector, outer diameter 102 mm

SPARE PART: CLAMP CAP FOR HEXAGON NUT M8

Nominal size	
○ Other	97575



GRÖMO ALUSTAR DOWNPIPE TO STANDPIPE ADAPTER BOX SHAPE TO ROUND

Nominal size	80 80	100 100
● Anthracite	89631	89641
● Jet black	89638	89648
● Light grey	89633	89643
● Testa di Moro	89632	89642

On NG 100, made of titanium zinc



GRÖMO ALUSTAR RAINWATER STANDPIPE BRACKET WITH THREADED NUT M10

Nominal size	80	100	120
● Anthracite	89881	89891	89901
● Jet black	89888	89898	89908
● Light grey	89883	89893	89903
● Testa di Moro	89882	89892	89902

Made from galvanised steel. Threaded nut, galvanised. For connecting to SPI dowel, hanger bolt, or thermo stop



DUOFALZ SHEET METAL STRIP 60 KG

Nominal size	0,7x500	0,7x650	0,7x1000
● Anthracite	83081 ²	83091 ²	83101 ²
● Jet black	83088 ²	83098 ²	83108 ²
● Dark gray	83089 ²	83099 ²	83109 ²
● Grey aluminium			83112 ¹
● Light grey	83083 ²	83093 ²	83103 ²
● Silver metallic	83090 ²	83100 ²	83110 ²
○ White	83084 ²	83094 ²	83104 ²
● Testa di Moro	83082 ²	83092 ²	83102 ²
● Moss green	83085 ²	83095 ²	83105 ²
● Brick red	83086 ²	83096 ²	83106 ²
● Oxide red	83087 ²	83097 ²	83107 ²

¹ Coloured aluminium strip in seam quality, material quality: EN AW 3005 H41, can be used on both sides, front and back side: TX coating. On request also available in other roll sizes (> 15 m). Make sure that the batches are the same and that they are laid in the same direction.

² Coloured aluminium strip in seam quality, material quality: EN AW 3005 H41, can be used on both sides, front side: TX coating, rear side: Same colour SX coating. On request also available in other roll sizes (> 15 m) and in stucco. Pay attention to batch uniformity and laying direction



DUOFALZ STUCCO SHEET METAL STRIP 60 KG

Nominal size	0,7x500	0,7x650
● Anthracite	83591	83691

Coloured aluminium strip in seam quality, material quality: EN AW 3005 H41, can be used on both sides, front side: TX coating, rear side: Same colour SX coating. On request also available in other roll sizes (> 15 m) and in stucco. Pay attention to batch uniformity and laying direction



DUOFALZ SHEET METAL STRIP 500 KG

Nominal size	0,7x500	0,7x650	0,7x1000
● Anthracite	83191 ²	83271 ²	83281 ²
● Jet black	83194 ²	83278 ²	83288 ²
● Dark gray		83279 ²	83289 ²
● Grey aluminium			83287 ¹
● Light grey		83273 ²	83283 ²
● Silver metallic		83280 ²	83290 ²
● Testa di Moro		83272 ²	83282 ²

¹ Coloured aluminium strip in seam quality, material quality: EN AW 3005 H41, can be used on both sides, front and back side: TX coating. On request also available in other roll sizes (> 15 m). Make sure that the batches are the same and that they are laid in the same direction.

² Coloured aluminium strip in seam quality, material quality: EN AW 3005 H41, can be used on both sides, front side: TX coating, rear side: Same colour SX coating. On request also available in other roll sizes (> 15 m) and in stucco. Pay attention to batch uniformity and laying direction



DUOFALZ METAL SHEET

Nominal size	0,7x1000x2000	0,7x1000x3000
● Anthracite	83291 ²	83951 ¹
● Jet black	83298 ²	83958 ¹
● Dark gray	83299 ²	
● Light grey	83293 ²	
○ White	83294 ²	83954 ¹
● Testa di Moro	83292 ²	
● Moss green	83295 ²	
● Brick red	83296 ²	
● Oxide red	83297 ²	

¹ Sheet size: 0.7 x 1000 x 3000 mm. With protective film on the SX side, One panel corresponds to approx. 6.08 kg, Material grade: EN AW 3005 H41 (fold quality Can be used on both sides. FRONT: TX coating, rear side: Same colour SX coating. Other colours on request. Make sure that the batches are the same and that they are laid in the same direction.

² Sheet size: 0.7 x 1000 x 2000 mm. With protective film on the SX side, One panel corresponds to approx. 4.05 kg, Material grade: EN AW 3005 H41 (fold quality Can be used on both sides. FRONT: TX coating, rear side: Same colour SX coating. Moss green and oxide red by request Make sure that the batches are the same and that they are laid in the same direction.



DUOFALZ STUCCO METAL SHEET



Nominal size	0,7x1000x2000
● Anthracite	83595

Panel size: 0.7 x 1000 x 2000 mm. Without protective film. One panel weighs approx. 3.84 kg. Material grade: EN AW 3005 H41. Can be used on one side (TX side). Back side: SX coating in matching color. Ensure batch consistency and correct installation direction.



FIXED CLIPS

Nominal size	25	32
● Stainless steel	83930	83931



SLIDING CLIPS

Nominal size	25	32
● Stainless steel	83932	83933



LONG SLIDING CLIPS

Nominal size	25	32
● Stainless steel	83934	83935



FIXED U CLIPS

Nominal size	75
● Stainless steel	83936



SLIDING U CLIPS

Nominal size	78
● Stainless steel	83937



GRÖMO ALUSTAR SPECIAL ADHESIVE (INNOTEK ADHESEAL BLACK)

Nominal size

<input checked="" type="radio"/> Other	86930
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Cartridge (290 ml), observe processing guidelines and safety data sheet



GRÖMO ALUSTAR SPECIAL CLEANER (INNOTEK REPAPLAST CLEANER ANTISTATIC)

Nominal size

<input checked="" type="radio"/> Other	86931
--	-------

Aerosol can (500 ml), observe processing guidelines and safety data sheet



GRÖMO ALUSTAR PRIMER (INNOTEK REPAPLAST PRIMER NEW FORMULA)

Nominal size

<input checked="" type="radio"/> Other	86932
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Aerosol can (500 ml), observe processing guidelines and safety data sheet



SEAM GEL

Nominal size	300
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<input checked="" type="radio"/> Other	86940
--	-------

Cartridge 300 ml, transparent, UV-resistant, observe processing guidelines and safety data sheet. For approx. 25-30 m double seam



SEALING TAPE (BEKO)

Nominal size	1-4
--------------	-----

<input checked="" type="radio"/> Other	86938
--	-------

Roll 13 metres long, for sealing double standing seams with joints 1-4 mm wide



GRÖMO ALUSTAR TOUCH-UP STICK

NEW

Nominal size	
--------------	--

<input checked="" type="radio"/> Anthracite	83991
<input checked="" type="radio"/> Jet black	83998
<input checked="" type="radio"/> Light grey	83993
<input checked="" type="radio"/> Testa di Moro	83992

Contents 8 ml. Observe processing guidelines and safety data sheet.



VENTILATOR RIDGE UNIT

Nominal size

● Stainless steel	54035
-------------------	-------

Length 1905 mm



GRÖMO ALUSTAR ADHESIVE TRIM

Nominal size

	100-125
--	----------------

● Anthracite	87021
● Light grey	87023
● Testa di Moro	87022

With adhesive flange for ventilation pipes ø100-125, roof angle 7-50°



GRÖMO ALUSTAR ADHESIVE TRIM 2-PIECE

Nominal size

	60-100
--	---------------

● Anthracite	87031
● Light grey	87033
● Testa di Moro	87032

With adhesive flange for ventilation pipes ø60-100, roof angle 5-50°



GRÖMO ALUSTAR OUTLET VENT WITH VENT CAP

Nominal size	110	125
● Anthracite	87001	87011
● Light grey	87003	87013
● Testa di Moro	87002	87012

With variable rain collar



GRÖMO ALUSTAR SNOW GUARD PIPE

Nominal size **28**

● Anthracite	87101
● Light grey	87103
● Testa di Moro	87102

Length 3 metres. Price per metre. Polished cut edge on a pipe end. Connecting sleeves available separately



GRÖMO ALUSTAR CONNECTING SLEEVE

Nominal size **28**

● Anthracite	87111
● Light grey	87113
● Testa di Moro	87112

For connecting snow guard pipes



GRÖMO ALUSTAR SNOW GUARD BRACKET, SINGLE

Nominal size **einfach**

● Anthracite	87121
● Light grey	87123
● Testa di Moro	87122



GRÖMO ALUSTAR SNOW GUARD BRACKET, DOUBLE

Nominal size **doppelt**

● Anthracite	87131
● Light grey	87133
● Testa di Moro	87132



GRÖMO ALUSTAR ICE CATCHER

Nominal size **75**

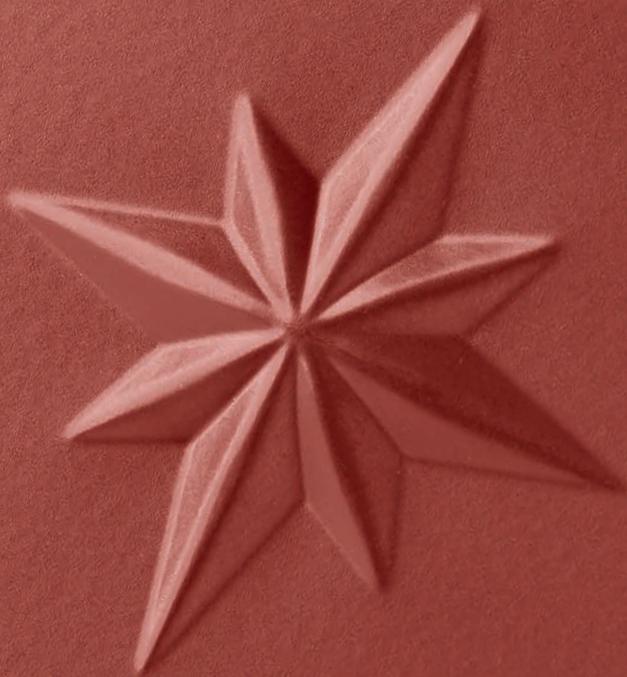
● Anthracite	87141
● Light grey	87143
● Testa di Moro	87142

SX SURFACE

- Smooth surface with an elegant, silk gloss appearance
- Wide range of colours
- Good colour fastness



GRÖMO



GRÖMO ALUSTAR - SX SURFACE

Roof gutters	68
Gutter corners / -accessories	69
Gutter outlets / Hoppers	75
Elbows	78
Rainwater downpipes	80
Pipe accessories	81
Rainwater standpipes	89
Metal strips and sheets	91
Accessories	93
Roof accessories	95

333-100
DIN EN
12056-3



GRÖMO ALUSTAR GUTTER, HALF ROUND 3 M

Nominal size	250	280	333	400
● Anthracite	83001 ¹	83011 ¹	83021 ¹	83031 ¹
● Light grey	83003 ¹	83013 ¹	83023 ¹	83033 ¹
○ White	83004 ¹	83014 ¹	83024 ¹	83034 ¹
● Testa di Moro	83002 ¹	83012 ¹	83022 ¹	83032 ¹
● Moss green	83005 ¹	83015 ¹	83025 ¹	83035 ¹
● Brick red	83006 ¹	83016 ¹	83026 ¹	83036 ¹
● Oxide red	83007 ¹	83017 ¹	83027 ¹	83037 ¹
● RAL - custom colour	83000 ²	83010 ²	83020 ²	83030 ²

¹ With protective film

² Without protective film



GRÖMO ALUSTAR GUTTER, HALF ROUND 5 M

Nominal size	250	280	333	400
● Anthracite	83041	83051	83061	83071

With protective film



GRÖMO ALUSTAR GUTTER, BOX SHAPE 3 M

Nominal size	250	333	400
● Anthracite	83301 ¹	83311 ¹	83321 ¹
● Light grey	83303 ¹	83313 ¹	83323 ¹
○ White	83304 ¹	83314 ¹	83324 ¹
● Testa di Moro	83302 ¹	83312 ¹	83322 ¹
● Moss green	83305 ¹	83315 ¹	83325 ¹
● Brick red	83306 ¹	83316 ¹	83326 ¹
● Oxide red	83307 ¹	83317 ¹	83327 ¹
● RAL - custom colour	83300 ²	83310 ²	83320 ²

¹ With protective film

² Without protective film



GRÖMO ALUSTAR GUTTER, BOX SHAPE 5 M

Nominal size	250	333	400
● Anthracite	83331	83341	83351

With protective film



GRÖMO ALUSTAR GUTTER HOOK HALF ROUND

Nominal size	250 23x7	280 28x7	333 28x7	333 30x5	400 30x7
● Anthracite	83601 ¹	83611 ¹	83621 ¹	83681 ²	83671 ¹
● Light grey	83603 ¹	83613 ¹	83623 ¹	83683 ²	83673 ¹
○ White	83604 ¹	83614 ¹	83624 ¹		83674 ¹
● Testa di Moro	83602 ¹	83612 ¹	83622 ¹	83682 ²	83672 ¹
● Moss green	83605 ¹	83615 ¹	83625 ¹		83675 ¹
● Brick red	83606 ¹	83616 ¹	83626 ¹		83676 ¹
● Oxide red	83607 ¹	83617 ¹	83627 ¹		83677 ¹
● RAL - custom colour	83600 ¹	83610 ¹	83620 ¹		83670 ¹

¹ See technical data sheet for dimensions

² Made from galvanised steel. See technical data sheet for dimensions



GRÖMO ALUSTAR GUTTER HOOK HALF ROUND LONG

Nominal size	280 28x7	333 28x7
● Anthracite	83651	83661
● Light grey	83653	83663
○ White	83654	83664
● Testa di Moro	83652	83662
● Moss green	83655	83665
● Brick red	83656	83666
● Oxide red	83657	83667
● RAL - custom colour	83650	83660

See technical data sheet for dimensions



GRÖMO ALUSTAR GUTTER HOOK BOX SHAPE

Nominal size	250 23x7	333 28x7	400 30x7
● Anthracite	83701	83711	83721
● Light grey	83703	83713	83723
○ White	83704	83714	83724
● Testa di Moro	83702	83712	83722
● Moss green	83705	83715	83725
● Brick red	83706	83716	83726
● Oxide red	83707	83717	83727
● RAL - custom colour	83700	83710	83720

See technical data sheet for dimensions



GRÖMO ALUSTAR FASCIA BRACKET HALF ROUND

Nominal size	250 28x7	280 28x7	333 28x7
● Anthracite	83731	83741	83751
● Light grey	83733	83743	83753
○ White	83734	83744	83754
● Testa di Moro	83732	83742	83752
● Moss green	83735	83745	83755
● Brick red	83736	83746	83756
● Oxide red	83737	83747	83757
● RAL - custom colour	83730	83740	83750

See technical data sheet for dimensions



GRÖMO ALUSTAR FASCIA BRACKET BOX SHAPE

Nominal size	250 28x7	333 28x7
● Anthracite	82941	82951
● RAL - custom colour	82940	82950

See technical data sheet for dimensions



GRÖMO ALUSTAR GUTTER CORNER - EXTERIOR CORNER - 90° - HALF ROUND

Nominal size	250	280	333	400
● Anthracite	82101	82111	82121	82131
● Light grey	82103	82113	82123	82133
○ White	82104	82114	82124	82134
● Testa di Moro	82102	82112	82122	82132
● Moss green	82105	82115	82125	82135
● Brick red	82106	82116	82126	82136
● Oxide red	82107	82117	82127	82137
● RAL - custom colour	82100	82110	82120	82130

Deep-drawn



GRÖMO ALUSTAR GUTTER CORNER - INTERIOR CORNER - 90° - HALF ROUND

Nominal size	250	280	333	400
● Anthracite	82001	82011	82021	82031
● Light grey	82003	82013	82023	82033
○ White	82004	82014	82024	82034
● Testa di Moro	82002	82012	82022	82032
● Moss green	82005	82015	82025	82035
● Brick red	82006	82016	82026	82036
● Oxide red	82007	82017	82027	82037
● RAL - custom colour	82000	82010	82020	82030

Deep-drawn



GRÖMO ALUSTAR GUTTER CORNER - EXTERIOR CORNER - 90° - BOX SHAPE

Nominal size	250	333	400
● Anthracite	82151	82171	82181
● Light grey	82153	82173	82183
○ White	82154	82174	82184
● Testa di Moro	82152	82172	82182
● Moss green	82155	82175	82185
● Brick red	82156	82176	82186
● Oxide red	82157	82177	82187
● RAL - custom colour	82150	82170	82180

Soldered



GRÖMO ALUSTAR GUTTER CORNER - INTERIOR CORNER - 90° - BOX SHAPE

Nominal size	250	333	400
● Anthracite	82051	82071	82081
● Light grey	82053	82073	82083
○ White	82054	82074	82084
● Testa di Moro	82052	82072	82082
● Moss green	82055	82075	82085
● Brick red	82056	82076	82086
● Oxide red	82057	82077	82087
● RAL - custom colour	82050	82070	82080

Soldered



GRÖMO ALUSTAR PLUG-IN GUTTER END CAP HALF ROUND LEFT

Nominal size	250	280	333	400
● Anthracite	82401	82411	82421	82431
● Light grey	82403 *	82413 *	82423 *	82433 *
● Testa di Moro	82402 *	82412 *	82422 *	82432 *
● RAL - custom colour	82400	82410	82420	82430

With mortise groove for easy installation

* Discontinued item, available only while stocks last



GRÖMO ALUSTAR PLUG-IN GUTTER END CAP HALF ROUND RIGHT

Nominal size	250	280	333	400
● Anthracite	82441	82451	82461	82471
● Light grey	82443 *	82453 *	82463 *	82473 *
● Testa di Moro	82442 *	82452 *	82462 *	82472 *
● RAL - custom colour	82440	82450	82460	82470

With mortise groove for easy installation

* Discontinued item, available only while stocks last



GRÖMO ALUSTAR GUTTER END CAP HALF ROUND UNIVERSAL - HIGH

Nominal size	250	280	333	400
● Light grey	82363	82373	82383	82393
○ White	82404	82414	82424	82434
● Testa di Moro	82362	82372	82382	82392
● Moss green	82405	82415	82425	82435
● Brick red	82406	82416	82426	82436
● Oxide red	82407	82417	82427	82437

To hems



GRÖMO ALUSTAR GUTTER END CAP BOX SHAPE UNIVERSAL

Nominal size	250	333	400
● Anthracite	83801	83811	83821
● Light grey	83803	83813	83823
○ White	83804	83814	83824
● Testa di Moro	83802	83812	83822
● Moss green	83805	83815	83825
● Brick red	83806	83816	83826
● Oxide red	83807	83817	83827
● RAL - custom colour	83800	83810	83820

To hems



GRÖMO ALUSTAR GUTTER EXPANDER - WITH COVER - HALF ROUND

Nominal size	280	333	400
● Anthracite	83211	83221	83231
● Light grey	83213	83223	83233
○ White	83214	83224	83234
● Testa di Moro	83212	83222	83232
● Moss green	83215	83225	83235
● Brick red	83216	83226	83236
● Oxide red	83217	83227	83237
● RAL - custom colour	83210	83220	83230

Vulcanised on both sides



GRÖMO ALUSTAR GUTTER EXPANDER - WITH COVER - BOX SHAPE

Nominal size	333	400
● Anthracite	83251	83261
● Light grey	83253	83263
○ White	83254	83264
● Testa di Moro	83252	83262
● Moss green	83255	83265
● Brick red	83256	83266
● Oxide red	83257	83267
● RAL - custom colour	83250	83260

Vulcanised on both sides



LEAF SIEVE

Nominal size	60	75-80	100	120
● Galvanised steel	51003			
● Stainless steel		54004	54006	54007



GRÖMO ALUSTAR PLUG-IN GUTTER OUTLET OVAL - HALF ROUND GUTTER

Nominal size	250 60	250 80	280 80	280 100	333 80	333 100	333 120	400 100	400 120
● Anthracite	82201	82211	82221	82231	82241	82251	82261	82281	82271
● Light grey	82203	82213	82223	82233	82243	82253	82263	82283	82273
○ White		82214	82224	82234	82244	82254	82264	82284	82274
● Testa di Moro	82202	82212	82222	82232	82242	82252	82262	82282	82272
● Moss green		82215	82225	82235	82245	82255	82265		82275
● Brick red		82216	82226	82236	82246	82256	82266		82276
● Oxide red		82217	82227	82237	82247	82257	82267		82277
● RAL - custom colour	82200	82210	82220	82230	82240	82250	82260	82280	82270

Butt welded, with spring clip for easy mounting



GRÖMO ALUSTAR PLUG-IN GUTTER OUTLET - BOX SHAPE GUTTER - BOX SHAPE PIPE

Nominal size	250 80x80	333 80x80	333 100x100
● Anthracite	82331	82341	82351
● Light grey	82333	82343	82353
● Testa di Moro	82332	82342	82352
● RAL - custom colour	82330	82340	82350

Soldered



GRÖMO ALUSTAR PLUG-IN GUTTER OUTLET - BOX SHAPE GUTTER - ROUND PIPE

Nominal size	250 80	333 100	400 120
● Anthracite	82301	82311	82321
● Light grey	82303	82313	82323
○ White	82304	82314	82324
● Testa di Moro	82302	82312	82322
● Moss green	82305	82315	82325
● Brick red	82306	82316	82326
● Oxide red	82307	82317	82327
● RAL - custom colour	82300	82310	82320

Roll seam welded, with loop for hooking in



GRÖMO ALUSTAR OUTLET SPOUT BOX-SHAPED

Nominal size **80**

White 82544



GRÖMO ALUSTAR FLAT ROOF HOPPER WITHOUT INFLOW

Nominal size **100**

Anthracite 82861

Light grey 82863

Testa di Moro 82862

RAL - custom colour 82860

Height: 390 mm, width: 242 mm, depth: 150 mm



GRÖMO ALUSTAR FLAT ROOF HOPPER, CUBIC, WITHOUT INFLOW

Nominal size **80** **100**

Anthracite 82901 82871

Light grey 82903 82873

White 82904 82874

Testa di Moro 82902 82872

RAL - custom colour 82900 82870

Height: 200 mm, width: 200 mm, depth: 200 mm



GRÖMO ALUSTAR FLAT ROOF HOPPER, CUBIC, WITHOUT INFLOW

Nominal size **80** **100**

Anthracite 82881 82891

Light grey 82883 82893

White 82884 82892

Testa di Moro 82882 82892

RAL - custom colour 82880 82890

Height: 185 mm, width: 180 mm, depth: 160 mm



GRÖMO ALUSTAR DESIGN FLAT-ROOF HOPPER

Nominal size	80	100	120
● Anthracite	82911	82921	82931
● RAL - custom colour	82910	82920	82930



Nominal size 76-80: Height: 210 mm, width: 210 mm, depth: 140 mm
 Nominal size 87 -100: Height: 300 mm, width: 300 mm, depth: 160 mm
 Nominal size 120: Height: 360 mm, width: 360 mm, depth: 180 mm



GRÖMO ALUSTAR HOPPER, CUBIC ECCENTRIC

Nominal size	80	100	120
● Anthracite	82801	82811	82821
● Light grey	82803	82813	82823
○ White	82804	82814	82824
● Testa di Moro	82802	82812	82822
● Moss green	82805	82815	82825
● Brick red	82806	82816	82826
● Oxide red	82807	82817	82827
● RAL - custom colour	82800	82810	82820

Height: 283 mm, width: 240 mm, depth: 240 mm



GRÖMO ALUSTAR HOPPER, CUBIC ECCENTRIC WITH OVERFLOW PIPE

Nominal size	80	100	120
● Anthracite	82831	82841	82851
● Light grey	82833	82843	82853
● Testa di Moro	82832	82842	82852
● RAL - custom colour	82830	82840	82850

Height: 283 mm, width: 240 mm, depth: 240 mm



TPE SEAL

Nominal size	
○ Other	50945

Seal 3 m length, for installation in hoppers, for safe drainage of rainwater in attic seals



GRÖMO ALUSTAR PIPE ELBOW 40°

Nominal size	60	80	100	120
● Anthracite	82601 ²	82611 ¹	82621 ¹	82631 ¹
● Light grey	82603 ²	82613 ¹	82623 ¹	82633 ¹
○ White		82614 ¹	82624 ¹	82634 ¹
● Testa di Moro	82602 ²	82612 ¹	82622 ¹	82632 ¹
● Moss green		82615 ¹	82625 ¹	82635 ¹
● Brick red		82616 ¹	82626 ¹	82636 ¹
● Oxide red		82617 ¹	82627 ¹	82637 ¹
● RAL - custom colour	82600 ²	82610 ¹	82620 ¹	82630 ¹

¹ Butt-welded with indent

² Roll seam welded, without indent



GRÖMO ALUSTAR PIPE ELBOW 72°

Nominal size	60	80	100	120
● Anthracite	82501 ²	82511 ¹	82521 ¹	82531 ¹
● Light grey	82503 ²	82513 ¹	82523 ¹	82533 ¹
○ White		82514 ¹	82524 ¹	82534 ¹
● Testa di Moro	82502 ²	82512 ¹	82522 ¹	82532 ¹
● Moss green		82515 ¹	82525 ¹	82535 ¹
● Brick red		82516 ¹	82526 ¹	82536 ¹
● Oxide red		82517 ¹	82527 ¹	82537 ¹
● RAL - custom colour	82500 ²	82510 ¹	82520 ¹	82530 ¹

¹ Butt-welded with indent

² Roll seam welded, without indent



GRÖMO ALUSTAR PIPE ELBOW 85°

Nominal size	60	80	100
● Anthracite	82561 ²	82571 ¹	82581 ¹
● Light grey	82563 ²	82573 ¹	82583 ¹
○ White		82574 ¹	82584 ¹
● Testa di Moro	82562 ²	82572 ¹	82582 ¹
● Moss green		82575 ¹	82585 ¹
● Brick red		82576 ¹	82586 ¹
● Oxide red		82577 ¹	82587 ¹
● RAL - custom colour	82560 ²	82570 ¹	82580 ¹

¹ Butt-welded with indent

² Roll seam welded, without indent



GRÖMO ALUSTAR SQUARE PIPE ELBOW 72°

Nominal size	80x80	100x100
● Anthracite	82591	82551
● Light grey	82593	82553
● Testa di Moro	82592	82552
● RAL - custom colour	82590	82550

Material thickness 0.6 mm due to production



GRÖMO ALUSTAR SWAN NECK

Nominal size	80	100	120
● Anthracite	82651	82661	82671
● Light grey	82653	82663	82673
○ White	82654	82664	82674
● Testa di Moro	82652	82662	82672
● Moss green	82655	82665	82675
● Brick red	82656	82666	82676
● Oxide red	82657	82667	82677
● RAL - custom colour	82650	82660	82670



GRÖMO ALUSTAR RAINWATER DOWNPIPE, ROUND 3 M

Nominal size	60	80	100	120
● Anthracite	83401 ¹	83411 ¹	83421 ¹	83431 ¹
● Light grey	83403 ¹	83413 ¹	83423 ¹	83433 ¹
○ White		83414 ¹	83424 ¹	83434 ¹
● Testa di Moro	83402 ¹	83412 ¹	83422 ¹	83432 ¹
● Moss green		83415 ¹	83425 ¹	83435 ¹
● Brick red		83416 ¹	83426 ¹	83436 ¹
● Oxide red		83417 ¹	83427 ¹	83437 ¹
● RAL - custom colour	83400 ²	83410 ²	83420 ²	83430 ²

¹ With protective film

² Without protective film



GRÖMO ALUSTAR RAINWATER DOWNPIPE, BOX SHAPE 2 M

Nominal size	80x80	100x100
● Anthracite	83491	83441
● Light grey	83493	83443
● Testa di Moro	83492	83442
● RAL - custom colour	83490	83440

Without protective film



GRÖMO ALUSTAR RAINWATER PIPE FLAP WITH STAINLESS STEEL SIEVE

Nominal size	80	100	120
● Anthracite	82731	82741	82751
● Light grey	82733	82743	82753
○ White	82734	82744	82754
● Testa di Moro	82732	82742	82752
● Moss green	82735	82745	82755
● Brick red	82736	82746	82756
● Oxide red	82737	82747	82757
● RAL - custom colour	82730	82740	82750

Regularly clean sieve and remove in winter due to risk of frost!



GRÖMO ALUSTAR DESIGN WATER COLLECTOR



Nominal size	80	100
● Anthracite	82781	82771
● Light grey		82773
● Testa di Moro		82772
● RAL - custom colour	82780	82770

Incl. hose set, consisting of 1" hose with a length of 33 cm and barrel connector



SPARE PART: HOSE WITH CONNECTORS FOR DESIGN WATER COLLECTOR

Nominal size	80-100
○ Other	50943

SPARE PART: SEALING CAP

Nominal size	1"
○ Other	50944



GRÖMO ALUSTAR WATER COLLECTOR

Nominal size	80	100	120
<input checked="" type="radio"/> Anthracite	82701	82711	82721
<input checked="" type="radio"/> Light grey	82703	82713	82723
<input type="radio"/> White	82704	82714	82724
<input checked="" type="radio"/> Testa di Moro	82702	82712	82722
<input checked="" type="radio"/> Moss green	82705	82715	82725
<input checked="" type="radio"/> Brick red	82706	82716	82726
<input checked="" type="radio"/> Oxide red	82707	82717	82727
<input checked="" type="radio"/> RAL - custom colour	82700	82710	82720

Including hose set consisting of 1" hose (for NG 76-100: Length 33 cm / for NG 120: Length 24 cm) and barrel connector

SPARE PART: HOSE WITH CONNECTORS

Nominal size	76-120
<input type="radio"/> Other	50942

SPARE PART: SEALING CAP

Nominal size	76-120
<input type="radio"/> Other	50939

Suitable for aluminium water collectors



HOSE FOR WATER COLLECTOR

Nominal size	1"
<input type="radio"/> Other	50948

In a roll with a length of 5 metres. Suitable for all water collectors with 1" hose



GRÖMO ALUSTAR FLAT-ROOF BRANCH

Nominal size	75 80	75 100	110 100	110 120
● Anthracite	83121	83131	83151	83141
● Light grey	83123	83133	83153	83143
● Testa di Moro	83122	83132	83152	83142
● RAL - custom colour	83120	83130	83150	83140

Includes pre-mounted inflow seal



GRÖMO ALUSTAR FLAT-ROOF BRANCH BOX-SHAPE

Nominal size	75 80x80	75 100x100	110 100x100
● Anthracite	83964	83971	83981
● Light grey	83966	83973	83983
● Testa di Moro	83965	83972	83982
● RAL - custom colour	83963	83970	83980

Includes pre-mounted inflow seal



GRÖMO ALUSTAR BALCONY BRANCH 87.5° BOX-SHAPE

Nominal size	75 80x80	75 100x100
● Anthracite	83975	83960
● Light grey	83977	83962
● Testa di Moro	83976	83961
● RAL - custom colour	83974	83959

Includes pre-mounted inflow seal



GRÖMO ALUSTAR DOWNPIPE BRANCH 72°

Nominal size	80 60	80 80	100 60	100 80	100 100	120 80	120 100	120 120
● Anthracite	83551	83501	83511	83521	83531	83561	83571	83581
● Light grey	83553	83503	83513	83523	83533	83563	83573	83583
○ White		83504		83524	83534	83564	83574	83584
● Testa di Moro	83552	83502	83512	83522	83532	83562	83572	83582
● Moss green		83505		83525	83535	83565	83575	83585
● Brick red		83506		83526	83536	83566	83576	83586
● Oxide red		83507		83527	83537	83567	83577	83587
● RAL - custom colour	83550	83500	83510	83520	83530	83560	83570	83580

Also available with other bracket, diameter, double branch, or Y-branch upon request



GRÖMO ALUSTAR STANDPIPE CAP

Nominal size	80 116	100 116	100 150	120 150
● Anthracite	83451	83461	83471	83481
● Light grey	83453	83463	83473	83483
○ White	83454	83464	83474	83484
● Testa di Moro	83452	83462	83472	83482
● Moss green	83455	83465	83475	83485
● Brick red	83456	83466	83476	83486
● Oxide red	83457	83467	83477	83487
● RAL - custom colour	83450	83460	83470	83480



GRÖMO ALUSTAR SLIDING SLEEVE

Nominal size	80	100
● Anthracite	83761	83771
● Light grey	83763	83773
● Testa di Moro	83762	83772
● RAL - custom colour	83760	83770



GRÖMO ALUSTAR CONNECTION SLEEVE (PIPE CONNECTOR)

Nominal size	80	100	120
● Anthracite	83161	83171	83181
● Light grey	83163	83173	83183
○ White	83164	83174	83184
● Testa di Moro	83162	83172	83182
● Moss green	83165	83175	83185
● Brick red	83166	83176	83186
● Oxide red	83167	83177	83187
● RAL - custom colour	83160	83170	83180



GRÖMO ALUSTAR CONNECTION SLEEVE WITH SEAL

Nominal size	75 80	110 100
● Anthracite	83195	83196
● RAL - custom colour	83197	83198

Includes pre-mounted inflow seal

SPARE PART: LIP SEAL RING

Nominal size	75
○ Other	50949

Suitable for all flat roof branches except UGINOX Patina K41



GRÖMO ALUSTAR DESIGN DOWNPIPE BRACKET WITH THREADED NUT M10

Nominal size	100
● Anthracite	83941
● Light grey	83943
○ White	83944
● Testa di Moro	83942
● RAL - custom colour	83940

SPARE PART: SCREW WITH LOCK WASHER

Nominal size	100
● Stainless steel	54330



GRÖMO ALUSTAR DOWNPIPE BRACKET WITH THREADED NUT M10

Nominal size	60	80	100	120
● Anthracite	83831	83841	83851	83861
● Light grey	83833	83843	83853	83863
○ White		83844	83854	83864
● Testa di Moro	83832	83842	83852	83862
● Moss green		83845	83855	83865
● Brick red		83846	83856	83866
● Oxide red		83847	83857	83867
● RAL - custom colour	83830	83840	83850	83860

For connecting to SPI dowel, hanger bolt, or thermo stop



GRÖMO ALUSTAR DOWNPIPE BRACKET, SQUARE, WITH THREADED NUT M10

Nominal size	80x80	100x100
● Anthracite	83781 ¹	83791 ²
● Light grey	83783 ¹	83793 ²
● Testa di Moro	83782 ¹	83792 ²
● RAL - custom colour	83780 ¹	83790 ²

¹ For connecting to SPI dowel, hanger bolt, or thermo stop. Threaded nut, galvanised

² Made from galvanised steel. For connecting to SPI dowel, hanger bolt, or thermo stop. Threaded nut, galvanised. Also suitable for fixing the square standpipe



HANGER BOLT M10

Nominal size	M10 100	M10 140	M10 200	M10 250	M10 290
● Stainless steel	54313	54314	54315	54316	54317

With spanner flat



BASEPLATE WITH THREADED NUT M8/M10

Nominal size	M8 M10
● Stainless steel	54219



THERMO STOP

Nominal size	M10
● Stainless steel	50211

Prevents thermal bridge between hanger bolt and pipe bracket



STG PIPE BRACKET SUPPORT

Nominal size	80-120	120-160	160-200	200-240	240-320
● Stainless steel	54240 ¹	54241 ¹	54242 ¹	54243 ¹	54244 ²

¹ Mounting solution for pipe brackets with thermal insulation systems. In Austria, obtainable from Likunet company in Gänserndorf

² Mounting solution for pipe brackets with thermal insulation systems, 2 pieces. In Austria, obtainable from Likunet company in Gänserndorf



SPI PIPE BRACKET PLUG

Nominal size	M10 130	M10 260	M10 330
● Stainless steel	50236	50237	50238

Can be used with building height up to 8 m. If building height is over 8 m, follow the accepted rules of technology of the plumber/roofer trade!



DOWNPIPE STOPGAP

Nominal size	60-120 8	60-120 100
<input checked="" type="radio"/> Other	50921 ¹	50920 ²

¹ Roll length 8 m. Compatible with downpipe diameter 120 mm

² Roll length 100 m. Compatible with downpipe diameter 120 mm



GRÖMO ALUSTAR RAINWATER STANDPIPE 1.0 M - WITH CLEANING LID

Nominal size	80	100	120
● Anthracite	83361	83371	83381
● Light grey	83363	83373	83383
○ White	83364	83374	83384
● Testa di Moro	83362	83372	83382
● Moss green	83365	83375	83385
● Brick red	83366	83376	83386
● Oxide red	83367	83377	83387
● RAL - custom colour	83360	83370	83380

Made from galvanised steel. Fits directly on all common sewage pipes. No additional connectors necessary!



GRÖMO ALUSTAR RAINWATER STANDPIPE SQUARE 1.0 M - WITH CLEANING LID

Nominal size	100x100
● Anthracite	83391
● Light grey	83393
● Testa di Moro	83392
● RAL - custom colour	83390

Made from galvanised steel. Without seal element, with preformed connector, outer diameter 102 mm

SPARE PART: CLAMP CAP FOR HEXAGON NUT M8

Nominal size	
○ Other	97575



GRÖMO ALUSTAR DOWNPIPE TO STANDPIPE ADAPTER BOX SHAPE TO ROUND

Nominal size	80 80	100 100
● Anthracite	83631	83641
● Light grey	83633	83643
● Testa di Moro	83632	83642
● RAL - custom colour	83630	83640

On NG 100, made of titanium zinc



GRÖMO ALUSTAR RAINWATER STANDPIPE BRACKET WITH THREADED NUT M10

Nominal size	80	100	120
● Anthracite	83881	83891	83901
● Light grey	83883	83893	83903
○ White	83884	83894	83904
● Testa di Moro	83882	83892	83902
● Moss green	83885	83895	83905
● Brick red	83886	83896	83906
● Oxide red	83887	83897	83907
● RAL - custom colour	83880	83890	83900

Made from galvanised steel. Threaded nut, galvanised. For connecting to SPI dowel, hanger bolt, or thermo stop



DUOFALZ SHEET METAL STRIP 60 KG

Nominal size	0,7x500	0,7x650	0,7x1000
● Anthracite	83081 ²	83091 ²	83101 ²
● Jet black	83088 ²	83098 ²	83108 ²
● Dark gray	83089 ²	83099 ²	83109 ²
● Grey aluminium			83112 ¹
● Light grey	83083 ²	83093 ²	83103 ²
● Silver metallic	83090 ²	83100 ²	83110 ²
○ White	83084 ²	83094 ²	83104 ²
● Testa di Moro	83082 ²	83092 ²	83102 ²
● Moss green	83085 ²	83095 ²	83105 ²
● Brick red	83086 ²	83096 ²	83106 ²
● Oxide red	83087 ²	83097 ²	83107 ²

¹ Coloured aluminium strip in seam quality, material quality: EN AW 3005 H41, can be used on both sides, front and back side: TX coating. On request also available in other roll sizes (> 15 m). Make sure that the batches are the same and that they are laid in the same direction.

² Coloured aluminium strip in seam quality, material quality: EN AW 3005 H41, can be used on both sides, front side: TX coating, rear side: Same colour SX coating. On request also available in other roll sizes (> 15 m) and in stucco. Pay attention to batch uniformity and laying direction



DUOFALZ STUCCO SHEET METAL STRIP 60 KG

Nominal size	0,7x500	0,7x650
● Anthracite	83591	83691

Coloured aluminium strip in seam quality, material quality: EN AW 3005 H41, can be used on both sides, front side: TX coating, rear side: Same colour SX coating. On request also available in other roll sizes (> 15 m) and in stucco. Pay attention to batch uniformity and laying direction



DUOFALZ SHEET METAL STRIP 500 KG

Nominal size	0,7x500	0,7x650	0,7x1000
● Anthracite	83191 ²	83271 ²	83281 ²
● Jet black	83194 ²	83278 ²	83288 ²
● Dark gray		83279 ²	83289 ²
● Grey aluminium			83287 ¹
● Light grey		83273 ²	83283 ²
● Silver metallic		83280 ²	83290 ²
● Testa di Moro		83272 ²	83282 ²

¹ Coloured aluminium strip in seam quality, material quality: EN AW 3005 H41, can be used on both sides, front and back side: TX coating. On request also available in other roll sizes (> 15 m). Make sure that the batches are the same and that they are laid in the same direction.

² Coloured aluminium strip in seam quality, material quality: EN AW 3005 H41, can be used on both sides, front side: TX coating, rear side: Same colour SX coating. On request also available in other roll sizes (> 15 m) and in stucco. Pay attention to batch uniformity and laying direction



DUOFALZ METAL SHEET

Nominal size	0,7x1000x2000	0,7x1000x3000
● Anthracite	83291 ²	83951 ¹
● Jet black	83298 ²	83958 ¹
● Dark gray	83299 ²	
● Light grey	83293 ²	
○ White	83294 ²	83954 ¹
● Testa di Moro	83292 ²	
● Moss green	83295 ²	
● Brick red	83296 ²	
● Oxide red	83297 ²	

¹ Sheet size: 0.7 x 1000 x 3000 mm. With protective film on the SX side, One panel corresponds to approx. 6.08 kg, Material grade: EN AW 3005 H41 (fold quality Can be used on both sides. FRONT: TX coating, rear side: Same colour SX coating. Other colours on request. Make sure that the batches are the same and that they are laid in the same direction.

² Sheet size: 0.7 x 1000 x 2000 mm. With protective film on the SX side, One panel corresponds to approx. 4.05 kg, Material grade: EN AW 3005 H41 (fold quality Can be used on both sides. FRONT: TX coating, rear side: Same colour SX coating. Moss green and oxide red by request Make sure that the batches are the same and that they are laid in the same direction.



DUOFALZ STUCCO METAL SHEET

NEW

Nominal size	0,7x1000x2000
● Anthracite	83595

Panel size: 0.7 x 1000 x 2000 mm. Without protective film. One panel weighs approx. 3.84 kg. Material grade: EN AW 3005 H41. Can be used on one side (TX side). Back side: SX coating in matching color. Ensure batch consistency and correct installation direction.



GRÖMO ALUSTAR SHEET METAL STRIP, PERFORATED

Nominal size	0,7x1000
● Anthracite / Testa di Moro	83111
● Light grey	83113 *
● Aluminium beschichtet Hellgrau-Moosgrün	83115
○ White	83114
● Brick red/oxide red	83116

Roll size approx. 19 kg, 1 m² equal to 1.13 kg

* Discontinued item, available only while stocks last



FIXED CLIPS

Nominal size	25	32
● Stainless steel	83930	83931



SLIDING CLIPS

Nominal size	25	32
● Stainless steel	83932	83933



LONG SLIDING CLIPS

Nominal size	25	32
● Stainless steel	83934	83935



FIXED U CLIPS

Nominal size	75
● Stainless steel	83936



SLIDING U CLIPS

Nominal size	78
● Stainless steel	83937



GRÖMO ALUSTAR SPECIAL ADHESIVE (INNOTEK ADHESEAL BLACK)

Nominal size

<input checked="" type="radio"/> Other	86930
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Cartridge (290 ml), observe processing guidelines and safety data sheet



GRÖMO ALUSTAR SPECIAL CLEANER (INNOTEK REPAPLAST CLEANER ANTISTATIC)

Nominal size

<input checked="" type="radio"/> Other	86931
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Aerosol can (500 ml), observe processing guidelines and safety data sheet



GRÖMO ALUSTAR PRIMER (INNOTEK REPAPLAST PRIMER NEW FORMULA)

Nominal size

<input checked="" type="radio"/> Other	86932
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Aerosol can (500 ml), observe processing guidelines and safety data sheet



SEAM GEL

Nominal size	300
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<input checked="" type="radio"/> Other	86940
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Cartridge 300 ml, transparent, UV-resistant, observe processing guidelines and safety data sheet. For approx. 25-30 m double seam



SEALING TAPE (BEKO)

Nominal size	1-4
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<input checked="" type="radio"/> Other	86938
--	-------

Roll 13 metres long, for sealing double standing seams with joints 1-4 mm wide



GRÖMO ALU STAR TOUCH-UP PAINT

Nominal size

<input checked="" type="radio"/> Anthracite	83911
<input checked="" type="radio"/> Light grey	83913
<input type="radio"/> White	83914
<input checked="" type="radio"/> Testa di Moro	83912
<input checked="" type="radio"/> Moss green	83915
<input checked="" type="radio"/> Brick red	83916
<input checked="" type="radio"/> Oxide red	83917

Can (1 kg). Observe processing guidelines and safety data sheet.



GRÖMO ALU STAR TOUCH-UP STICK

NEW

Nominal size

<input checked="" type="radio"/> Anthracite	83921
<input checked="" type="radio"/> Light grey	83923
<input type="radio"/> White	83924
<input checked="" type="radio"/> Testa di Moro	83922

Contents 8 ml. Observe processing guidelines and safety data sheet.



VENTILATOR RIDGE UNIT

Nominal size

<input checked="" type="radio"/> Stainless steel	54035
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Length 1905 mm

GENERAL INFORMATION

MATERIALS AND COATING

The base material of our GRÖMO ALUSTAR product line is aluminium. The majority of the products are manufactured from polished aluminium alloys and then powder-coated piece by piece. In contrast, gutters and downpipes as well as the DUOFALZ coloured strips are produced from coil-coated aluminium alloys. The GRÖMO ALUSTAR range is rounded off by accessory products made from other materials (e.g. stainless steel, galvanised steel), which are either without any further surface treatment or powder-coated. In our product catalogue, the material of these accessory products is indicated either directly next to the product material or in the footer.

DIFFERENCES IN COLOUR

Due to the different coating processes between piece- and coil-coated products, there may be slight differences in colour and gloss level in appearance. The coating systems can also exhibit different weathering behaviour in the long term.

The RAL values given in our documents are approximate values which may differ from the original GRÖMO ALUSTAR colour and under certain circumstances may not reflect someone's subjective view of the colour. For exact colour determinations, original samples or our colour sample fan should therefore be consulted.

CUSTOM COLOURS

If your desired colour is not included in our standard colours, you can also get GRÖMO ALUSTAR as a custom-made product in your very own desired colour. Please note that powder coating is only possible for products with a maximum length of 3m.

Depending on the quantity and custom colour shade, there may be flat-rate surcharges and longer delivery times. For further information is available from your GRÖMO contact.





OUTLETS

DRAINAGE CAPACITY OF THE GRÖMO PLUG-IN GUTTER OUTLET*

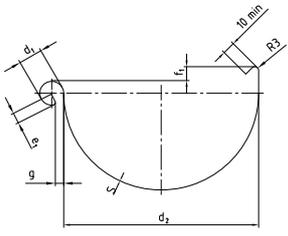
Construction method	Nominal size	Drainage capacity Outlet [l/s]	Drainage capacity Pipe [l/s]
Oval	250/60	3.0	2.7
	250/80	2.9	5.9
	280/80	4.1	5.9
	280/100	4.1	10.7
	333/80	7.4	5.9
	333/100	7.4	10.7
	333/120	7.2	17.4
	400/120	14.5	17.4
Box shape	250/80	2.4	5.9
	333/100	6.0	10.7
	400/120	10.8	17.4
	250/80x80	2.4	8.15
	333/80x80	5.9	8.15
	333/100x100	5.9	14.78

* Drainage table for GRÖMO outlets - DIN EN 12056 - Part 3

The measurement results were determined by the Technical University of Munich. It has been confirmed that GRÖMO outlets not only fulfil the standard, but exceed it. To guarantee these results, use the gutter section template developed by GRÖMO. You can download these to print out yourself at www.groemo.de or order them free of charge as templates from service@groemo.de.

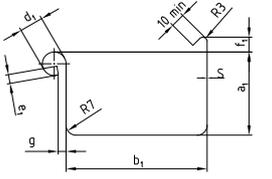
ROOF GUTTERS

GUTTER, HALF ROUND



Nominal size / Cutting width	d ₁ [mm]	d ₂ [mm]	e ₁ [mm]	f ₁ [mm]	g [mm]
+1/-2 mm	± 1 mm	+2/-0 mm	± 1 mm	min. [mm]	± 1 mm
250	18	105	7	10	5
280	18	127	7	11	6
333	20	153	9	11	6
400	22	192	9	11	6

GUTTER, BOX SHAPE



Nominal size / Cutting width	a ₁ [mm]	b ₁ [mm]	d ₁ [mm]	e ₁ [mm]	f ₁ [mm]	g [mm]
+1/-2 mm	± 1 mm	+0/-1 mm	± 1 mm	± 1 mm	min. [mm]	± 1 mm
250	55	85	18	7	10	5
333	75	120	20	9	10	6
400	90	150	22	9	10	6

In order to ensure a perfect fit and compatibility with existing gutters and accessories, it is necessary to adhere to the standard shapes and dimensions that go beyond the specifications of DIN EN 612.

MATERIAL THICKNESS (S), HALF ROUND AND BOX SHAPE GUTTER

Nominal size / cutting width	● Aluminium [mm]
250	0.70
280	0.70 ¹
333	0.70
400	0.70

¹ Material thickness applies to half round gutter, material thickness for box-shaped gutter not standardised

MOTION COMPENSATION FOR GUTTERS

The following constructions or components can be used to compensate for movement in gutters:

- Sliding joints at the highest points (high-point sliding joint)
- Rubber elements at every point
- Water hoppers or plug-in gutter outlets at the drain point

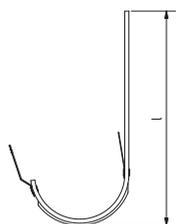
For suspended aluminium gutters up to 500 mm in size, expansion compensation must be installed every 12 m.

For outside corners or the start of the gutter, half the standard value applies: max. 7.5 m.

For inside corners, a quarter of the standard value applies: max. 3.75 m. Gutter corners must be designed as fixed points.

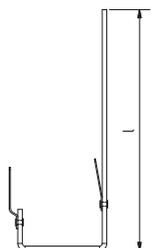
GUTTER HOOKS AND FASCIA BRACKETS

GUTTER HOOK ROOF GUTTER, HALF ROUND



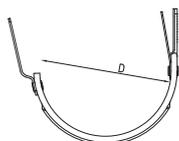
Nominal size	l [mm]
250 / 23x7	323
280 / 28x7	339.5
280 long / 28x7	439.5
333 / 28x7	362
333 / 30x5	362
333 long / 28x7	462
400 / 30x7	431.5

GUTTER HOOK ROOF GUTTER, BOX SHAPE



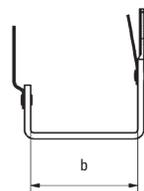
Nominal size	l [mm]
250 / 23x7	329.5
333 / 28x7	364
400 / 30x7	420.5

FASCIA BRACKET, HALF ROUND



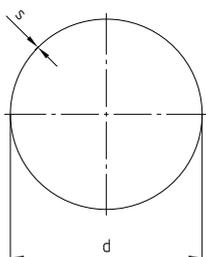
Nominal size	Ø D [mm]
250 / 23x7	105
280 / 28x7	127
333 / 28 x7	153

FASCIA BRACKET, BOX SHAPE



Nominal size	b [mm]
250 / 28x7	87
333 / 28x7	123

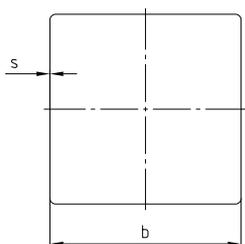
RAINWATER DOWNPIPE



MATERIAL THICKNESS (S), RAINWATER DOWNPIPES ROUND

Nominal size d *	● Aluminium [mm]
60	0.70
80	0.70
100	0.70
120	0.70

* d = inner pipe diameter, tolerance ± 1 mm



MATERIAL THICKNESS (S), RAINWATER DOWNPIPES BOX SHAPE

Nominal size w *	● Aluminium [mm]
80 x 80	0.70
100 x 100	0.70

* w = inner tube width, tolerance ± 1 mm

In order to ensure a perfect fit and compatibility with existing rainwater downpipes and accessories, it is necessary to adhere to the standard shapes and dimensions that go beyond the specifications of DIN EN 612.

CONNECTIONS (ACCORDING TO DIN EN 612)

Each manufactured length of rainwater downpipe must be either

- provided with a wide end (female end) and a narrow end (male end) so that the female and male ends of two manufactured lengths can be plugged together to form a plug-in connection with an overlap of at least 50 mm, or
- provided with equally wide ends for connection with loose sleeves.

ACCESSORIES (ACCORDING TO PLUMBING TRADE REGULATIONS ZVSHK)

According to DIN EN 612, accessories must be manufactured in such a way that they fit the corresponding downpipes and can be plugged in approx. 30 mm.

SHEET METAL STRIPS

LENGTH FOR ALUMINIUM STRIPS DEPENDING ON MATERIAL THICKNESS AND STRIP WIDTH

Width [mm]	Sheet thickness [mm]	1 kg	30 kg	60 kg	120 kg	250 kg	500 kg
500	0.7	approx. 1.05 m	approx. 32 m	approx. 64 m	approx. 127 m	approx. 265 m	approx. 530 m
650	0.7	approx. 0.81 m	approx. 24 m	approx. 49 m	approx. 97 m	approx. 203 m	approx. 405 m
1000	0.7	approx. 0.53 m	approx. 16 m	approx. 32 m	approx. 64 m	approx. 133 m	approx. 265 m

COIL DIMENSIONS

Coil weight [kg]	Cardboard core	Coil inner diameter [mm]	Coil outer diameter [mm]
60	-	approx. 340	approx. 420
500	✳	approx. 500	approx. 840

ADHESIVE BONDS

ADHESIVE BONDS WITH ONE CARTRIDGE (290 ml)

Gutter shape	Nominal size	Connections
Half round	250	approx. 22
	280	approx. 19
	333	approx. 15
	400	approx. 12
Box shape	250	approx. 22
	333	approx. 15
	400	approx. 12

One cartridge is sufficient for approx. 4 metres of adhesive bond

MATERIALS

ASSEMBLY OF METALS

Metal	Zinc	Copper	Galvanised steel	Stainless steel	Aluminium	Lead
Aluminium	*	-	*	*	*	*

* = permissible / - = not permitted

METAL WEIGHT BY THICKNESS

Metal	Density [kg/dm ³]	0.40 mm [kg/m ²]	0.50 mm [kg/m ²]	0.60 mm [kg/m ²]	0.65 mm [kg/m ²]	0.70 mm [kg/m ²]	0.80 mm [kg/m ²]	1.00 mm [kg/m ²]
Zinc	7.20	-	-	-	4.68	5.04	5.76	7.20
Copper	8.93	-	-	5.35	5.80	6.25	7.14	8.93
Galvanised steel	7.86	-	-	4.71	5.10	5.50	6.28	7.86
Stainless steel	7.90	-	3.95	4.74	5.13	5.53	6.32	7.90
UGINOX Patina K41	7.70	3.08	3.85	-	-	-	-	-
Aluminium	2.70	-	-	-	-	1.89	2.16	2.70

THERMAL EXPANSION OF METALS

Metal	Coefficient of thermal expansion α [in 10 ⁻⁶ /K]	Change in length per metre at 100 K [mm]	Change in length per 12 m at 100 K [mm]
Zinc	22	2.2	26.4
Copper	17	1.7	20.4
Galvanised steel	12	1.2	14.4
Stainless steel	16	1.6	19.2
UGINOX Patina K41	16	1.1	19.2
Aluminium	24	2.4	28.8

GENERAL TERMS AND CONDITIONS OF SALE OF GRÖMO GMBH & CO. KG

Valid since 01.01.2026

1. Scope, general points

1.1. Our General Terms and Conditions for sales (GTC) apply to all our business relationships with our customers where these are enterprises (§14 of the German Civil Code - BGB), legal entities of public law institutions or special asset funds under public law within the meaning of § 310 Chapter 1 BGB. They apply to the sale of movable items (goods) by us, regardless if the goods were manufactured by ourselves or procured from suppliers.

1.2. Our GTC apply exclusively to all business transactions between our customers and ourselves. We will not recognise General Terms and Conditions of the customer which contradict or deviate from our GTC unless we have expressly agreed, at least in text form, to their validity. Our GTC will also apply if we should perform without reservation for the customer even though we are aware of General Terms and Conditions of the customer which contradict or deviate from our GTC.

1.3. Unless otherwise agreed, our GTC in the version in force at the time of the order will apply as a framework agreement for future equivalent contracts without any requirement on our part to refer to them in every individual case.

1.4. Individual agreements made with the customer in individual cases (including collateral agreements, supplements and amendments) will in any case take precedence over these GTC. Subject to proof to the contrary, the content of such agreements will be governed by a contract, at least in text form, or by our confirmation, which must at least be in text form.

2. Conclusion of contract, trademarks, logos

2.1. Our offers are subject to confirmation and non-binding. This shall also apply if we have provided the customer with catalogues, technical documentation (e.g. drawings, plans, calculations, costings) and product descriptions or documents in any form whatsoever to which we reserve ownership rights and copyrights.

2.2. The order of the goods by the customer represents a binding contractual offer to which the customer is bound for 3 calendar weeks. The purchase contract will become effective only after we have sent an order confirmation in text form. The shipping of the goods or dispatch of the invoice will have the same legal effect in this regard as the dispatch of the order confirmation.

2.3. The use of our brand names, logos or photos and representations of Grömo products on the Internet or in other electronic or digital communication networks or in the form of television or radio transmissions or in print media requires an additional agreement with us concerning such use, at least in text form.

3. Prices, price adjustment, minimum order value

3.1. The prices in the current price list apply. The previous price lists will cease to apply with the publication of a new price list. Should we make an offer pursuant to section 2.1 the prices shown therein will apply.

3.2. If more than 4 months should elapse between the conclusion of the contract and delivery, and the market prices for raw materials, particularly zinc, copper and aluminium, should increase or decrease in this period, our price lists will apply, taking into consideration the current market prices for raw materials at the point of delivery. If this should result in an increase in the current total price of 20% or more above the original total price, the customer will have the right to withdraw from the contract. This right must be exercised immediately, at least in text form, after notification of the price increase.

3.3. In the case of an order value of less than €200.00 net, an additional processing fee of €30.00 net will be charged.

3.4. All prices are quoted "ex works" Marktoberdorf (EXW according to Incoterms 2020).

3.5. VAT at the statutory rate is not included in our prices. It will instead be shown separately on the invoice at the rate in force on the invoice date.

4. Delivery deadlines, impediments to delivery, urgent deliveries, partial deliveries, returning loaned pallets and packaging

4.1. Delivery is "ex works" Marktoberdorf (EXW according to Incoterms 2020). At the request and expense of the customer, we will ship the parts to another destination (sale by delivery to a place other than the place of destination). Unless otherwise agreed, we will be entitled to determine for ourselves the method of despatch (in particular the transport company, despatch route, packaging). A transport insurance policy can be concluded at the customer's request and expense.

4.2. Unless the delivery is to be carried out immediately, the delivery deadline will be announced in the order confirmation in accordance with clause 2.1. Should the customer be required to collaborate with us, the delivery period will not begin until the customer has fulfilled its obligations.

4.3. If a binding delivery date has been agreed, this deadline will be extended appropriately in the event of force majeure of any kind and of disruption to operations, traffic or dispatch, fire dam-

age, floods, shortages of labour, energy, raw materials or auxiliary materials, lawful strikes and official decrees for which we cannot assume liability, or any other events for which we cannot assume liability which may impair, delay, prevent or render unreasonable production, dispatch or consumption. In such cases, we will inform the customer immediately and, at the same time, provide a new anticipated delivery date. If the disruption should cause the delivery to be delayed by more than eight weeks, both parties will be entitled to withdraw from the contract. We will immediately reimburse the customer for any consideration previously paid by it. Other reasons for which we are not responsible within the meaning of the previous section include the failure on the part of our suppliers to deliver to us on time.

4.4. Express shipments will be made only if expressly requested by the customer, who will bear the costs of said shipments. This also applies to all other types of shipping expressly requested by the customer.

4.5. We are entitled to dispatch partial shipments. Any subsequent shipments will be sent carriage-free and without charge for packaging materials.

4.6. Loaned pallets will be taken back free of charge by the commissioned haulage companies. The disposal of packaging material will be carried out by INTERSEROH Dienstleistungs GmbH. This company assumes responsibility on our behalf in Germany and Austria for the sorting and marketing of packaging for the purpose of recycling pursuant to statutory packaging laws.

5. Warranty, complaints, planning services and returns

5.1. In the event of material defects and defects of title (including wrong and short delivery as well as improper assembly or faulty assembly instructions), the rights of the customer will be governed by the statutory provisions, unless otherwise stipulated below: In all cases, the special statutory provisions on the sale of consumer goods (§§ 474 ff BGB) and the customer's rights arising from separately issued guarantees remain unaffected.

5.2. The basis of our liability for defects is above all the agreement reached on the quality of the goods. All product descriptions and details which are the subject of the individual contract or which were made public by us (in particular in catalogues or on our Internet homepage) at the time of the conclusion of the contract will be deemed to be an agreement on the quality of the goods.

Insofar as the quality has not been agreed, the legal regulation will be used to assess whether or not a defect exists (§434 (3) BGB). However, we do not assume any liability for public statements made by the manufacturer or other third parties (e.g. advertising statements) which the customer has not pointed out to us as being decisive for its purchase.

5.3. Subject to clause 5.4., the customer's claims for defects presuppose that it has complied with its statutory obligations to inspect and give notice of defects (§§ 377, 381 HGB). Complaints on the grounds of recognisable defects, incorrect shipments or deviations from the agreed quantity must be reported to us immediately, at least in text form, and, at the latest, within fourteen calendar days of receipt of the goods. In the case of building materials and other goods intended for installation or further processing of some other kind, an inspection must always be carried out immediately prior to such installation or further processing. Concealed defects must be reported to us immediately, at least in text form, within fourteen calendar days of their discovery. If the customer should fail to properly inspect the goods and/or give notice of defects, our liability for any defect which has not been reported at all or in a timely manner or in the due form will be excluded in accordance with the statutory provisions. In the case of goods intended for assembly, mounting or installation, this shall also apply if the defect only became apparent after the corresponding processing as a result of the breach of one of these obligations; in this case, in particular, the customer shall have no claims for reimbursement of corresponding costs ("removal and installation costs"). Clause 5.5 remains unaffected.

5.4. For special productions, the customer must declare acceptance to us, at least in text form, immediately after delivery; in such a case, section 5.3 will not apply. We reserve the right to set the customer a suitable deadline for acceptance. If it is not possible for the customer to adhere to this deadline for reasons for which it is not responsible, a suitable subsequent deadline must be set. Failure by the customer to accept the goods within the aforementioned deadlines will be deemed equivalent to acceptance. Acceptance cannot be refused on the grounds of insignificant defects, particularly industry-standard deviations in respect of colour, weight and quantity. Should the customer fail to complain at the point of acceptance, it will no longer be entitled to submit complaints concerning defects which would have been recognisable at the point of acceptance.

5.5. The customer is not permitted to further process, install or sell goods in respect of which a defect complaint has been submitted or goods which have not been accepted until the complaint has been clarified or acceptance has taken place. We must be given the opportunity to choose either to inspect the affected goods on site or to have them returned to us. Clause 5.3. remains unaffected.

5.6. Excluded from warranty are any defects/damage resulting from normal wear and tear, improper handling or use, misuse, faulty assembly or repair. The same applies to defects which only negligibly reduce the value of the goods or impair their suitability for use. In particular, tolerances customary in the industry, deviations in colour, weight and quantity as well as the consequences of natural weather influences do not constitute a defect. If we carry out planning or calculation services at the customer's request, especially for gutters, or make recommendations or offer advice, these will be non-binding and subject to correction. These must in any case be verified by an expert (architect, engineer, etc.).

Furthermore, we are generally not liable for defects that the customer is aware of or is grossly negligent in not being aware of when the contract is concluded (§ 442 BGB).

5.7. In the event of justified and timely complaints, we will, at our discretion, either remedy the defect (rectification of defects) or deliver a defect-free item (replacement delivery) within the scope of subsequent performance. Subsequent performance does not include the dismantling, removal or disassembly of the defective item or the installation, attachment or assembly of a defect-free item if we were not originally obliged to perform these services; the customer's claims for reimbursement of corresponding costs ("dismantling and assembly costs") remain unaffected, subject to other provisions in these GTC (in particular 5.3). Our right to refuse subsequent fulfilment under the statutory conditions remains unaffected.

5.8. The customer must give us the time and opportunity necessary for the subsequent performance owed and, in particular, hand over the rejected goods for inspection purposes. In the event of a replacement delivery, the customer must return the defective item to us in accordance with the statutory provisions.

5.9. If the customer actually has a claim for defects, we will, in accordance with the statutory provisions, bear or reimburse the costs necessary for the purpose of inspection and subsequent performance, in particular transport, travel, labour and material costs as well as any dismantling and installation costs. Otherwise, we will be entitled to claim from the customer compensation for any costs arising from the unjustified request to remedy the defect (in particular inspection and transport costs), unless the absence of a defect was not apparent to the customer. 5.7. sentence 2 remains unaffected.

5.10. If subsequent performance should fail or a reasonable period to be set by the customer for subsequent performance expire fruitlessly or not be mandatory pursuant to the statutory provisions, the customer may withdraw from the purchase contract or reduce the purchase price. In the case of an insignificant defect (cf. section 5.6.), however, there is no right of withdrawal.

5.11. Claims of the customer for reimbursement of expenses in accordance with § 445a (1) BGB are excluded, unless it is a sale of consumer goods (§§ 478, 474 BGB). Claims of the customer for damages or reimbursement of futile expenses (§ 284 BGB) shall only exist in accordance with the following clause 6, even in the event of defects in the goods.

5.12. Warranty claims expire in five years; for specially marked products, the date of expiry is 12 months from receipt or acceptance of the goods.

5.13. The return of goods must be coordinated with us in advance for the purpose of efficient handling. Freight collect shipments and shipments of which we have not been notified in advance and to which we have not agreed will not be accepted.

6. Liability

6.1. Unless otherwise stated in these GTC and the following provisions, we shall only be liable for damages, irrespective of the legal grounds, in the event of wilful intent or gross negligence, including wilful intent or gross negligence on the part of our representatives or vicarious agents.

6.2. However, we will be liable in accordance with the statutory provisions if we culpably violate an essential contractual obligation (an obligation whose fulfilment makes the proper execution of the contract possible in the first place and on whose compliance the contractual partner regularly relies and should be able to rely); in this case, however, the liability for damages will be limited to the foreseeable, typically occurring damage.

6.3. Liability for culpable damage to life, limb and health is unaffected in all cases; the same applies also to mandatory liability pursuant to the German Product Liability Act and to the extent that a defect was maliciously concealed or a warranty offered for the condition of the goods.

7. Payment, offset payments, right of retention, interest

7.1. In principal, payment is due immediately upon receipt of the invoice without any deductions. We reserve the right initially to require payment in advance or COD for shipments to unknown customers.

7.2. Payment by cheque is conditionally acceptable subject to the successful redemption thereof. Bills of exchange are not acceptable as means of payment.

7.3. The customer may offset payments to us against receivables owed to it only in the case of undisputed debts or debts which have been upheld by a final and absolute court ruling or in whose case a ruling is expected imminently. The same applies to the customer's right of retention. The reciprocal rights of the buyer in the event of defects to the goods are unaffected.

7.4. Late payment by the customer will entitle us in accordance with § 247 BGB to charge default interest in the amount of 9 % above the applicable base rate.

8. Retention of title

8.1. Items purchased will remain our property until all payments arising from the business relationship between Grömo GmbH & Co. KG and the customer have been received.

8.2. In the event of a breach of contract by the customer, especially default on payment, and after having set a reasonable deadline for payment, we will be entitled to take back the goods subject to retention of title. Taking back the goods will constitute our withdrawal from the contract. After the recovery of the goods, we will be permitted to dispose thereof, and the proceeds resulting

from that disposal, less reasonable disposal expenses, will be offset against the customer's liability. The expense involved in returning the goods to us will be borne by the customer.

8.3. The customer must handle with care the goods subject to retention of title. It must sufficiently insure said goods at replacement value against fire and water damage and theft.

8.4. The customer has the right to resell the goods subject to retention of title in the course of its normal business activities, provided that it meets the obligations arising out of the business relationship with us in due time. However, it may not pledge the goods subject to retention of title or assign them by way of security.

The customer hereby assigns to us here and now all of its claims and rights arising from the resale of the goods subject to retention of title, as well as those claims of the customer with respect to the goods subject to retention of title which may for other legal reasons be asserted against its own customers or third parties (especially claims from unauthorised actions or for insurance payments), including all balance claims from current accounts. We hereby accept the assignment. The customer may on its own account and in its own name collect for us the receivables assigned to us until such time as we revoke its authorisation to do so.

Our right to collect these receivables ourselves is not affected by this; however, we will not assert the claims ourselves or revoke the direct debit authorisation as long as the customer duly meets its payment obligations. However, if the customer acts in breach of contract, we can require it to inform us of the assigned claims and the respective debtors, to notify the respective debtors of the assignment and to hand over to us all documents and provide us with all the information we need to assert the claims.

8.5. In the event of seizure of the goods subject to retention of title or other actions by third parties, the customer must inform those third parties of our ownership of those goods and notify us immediately, at least in text form, so that we can enforce our rights of ownership. Should the third party not be capable of reimbursing us for the court or out-of-court costs incurred in this context, the customer will be liable for any losses we sustain.

8.6. We hereby commit at the request of the customer to releasing the collateral due to us pursuant to the above provisions as and when the realisable value of the collateral held by us exceeds that of the receivables to be secured by more than 10%. The choice over the collateral to be released remains with us.

9. Place of fulfilment, place of jurisdiction, contractual language, data processing, partial invalidity

9.1. The place of fulfilment for all duties resulting from the contractual relationship is Marktoberdorf.

9.2. If the customer is a merchant within the meaning of the German Commercial Code, a legal entity under public law or a special asset fund under public law, the exclusive and international place of jurisdiction is Marktoberdorf, where our headquarters are located, for all disputes resulting directly or indirectly from the contractual relationship. We also have the right to open proceedings at the place of general jurisdiction of the customer. Overriding statutory provisions, in particular regarding exclusive responsibilities, remain unaffected.

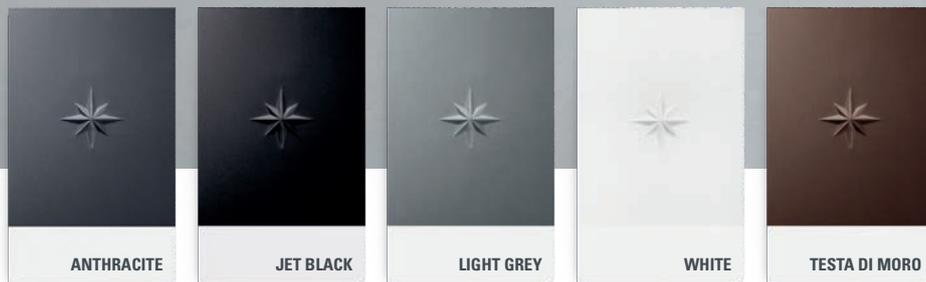
9.3. The law of the Federal Republic of Germany applies. German international private law and the UN Convention on Contracts for the International Sale of Goods (CISG) are excluded.

9.4. Even if the customer is in possession of a non-binding translation of these GTC into another language, the German version alone will be authoritative.

9.5. Should the customer supply us with data related to persons, the data required to process the business transaction will be collected, processed, stored and passed on to other affiliated companies in the context of order processing and, if necessary, to partner and service companies. With regard to the detailed rules for processing data, we refer to our data protection regulations at www.groemo.com/de/footer/datenschutz.

9.6. If individual provisions of these GTC or the business transaction should be or become invalid, the remainder of the provisions will be unaffected. Any invalid provision is to be replaced by that valid and permissible provision which most closely corresponds with the invalid provision in terms of its meaning and purpose.

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