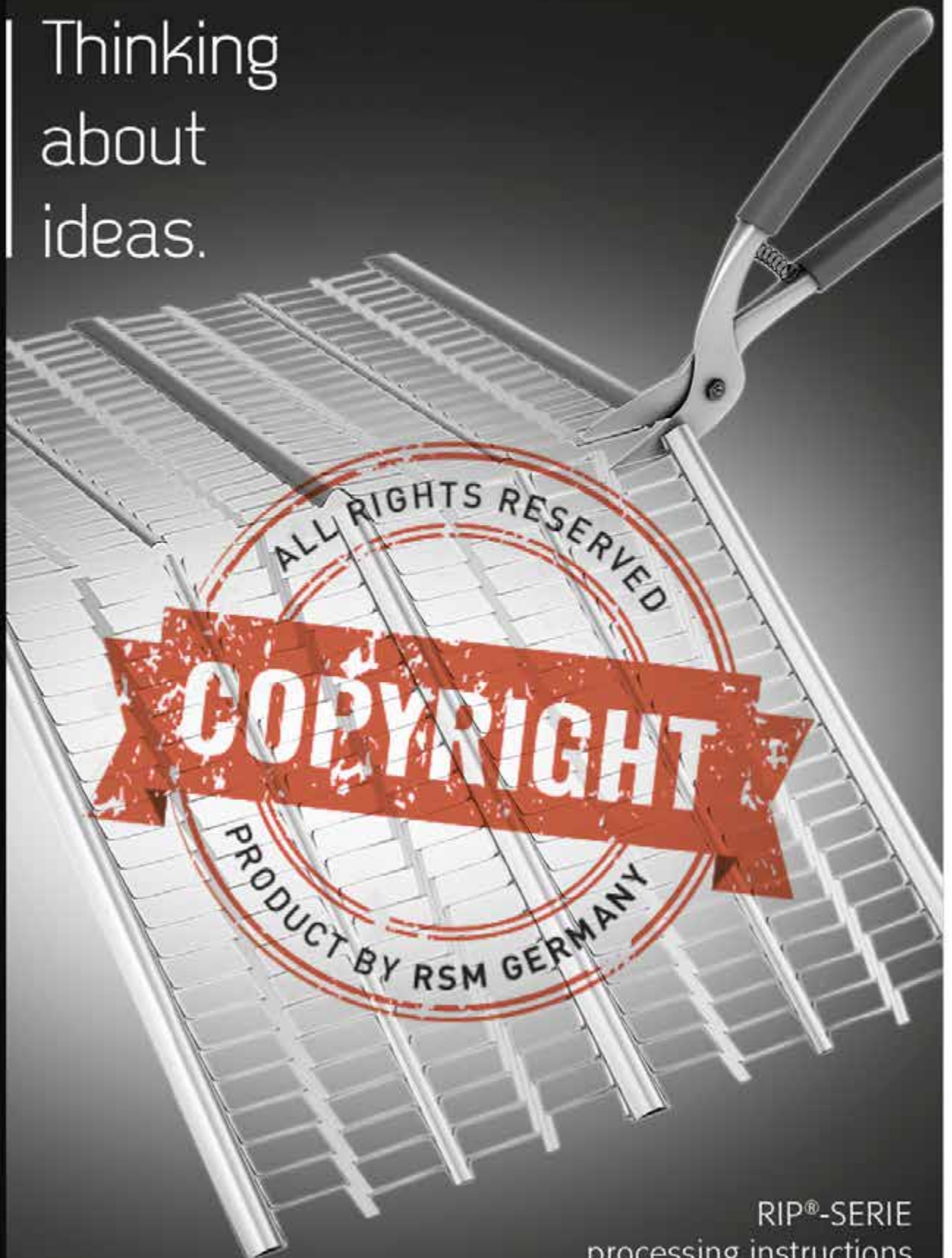


Thinking
about
ideas.



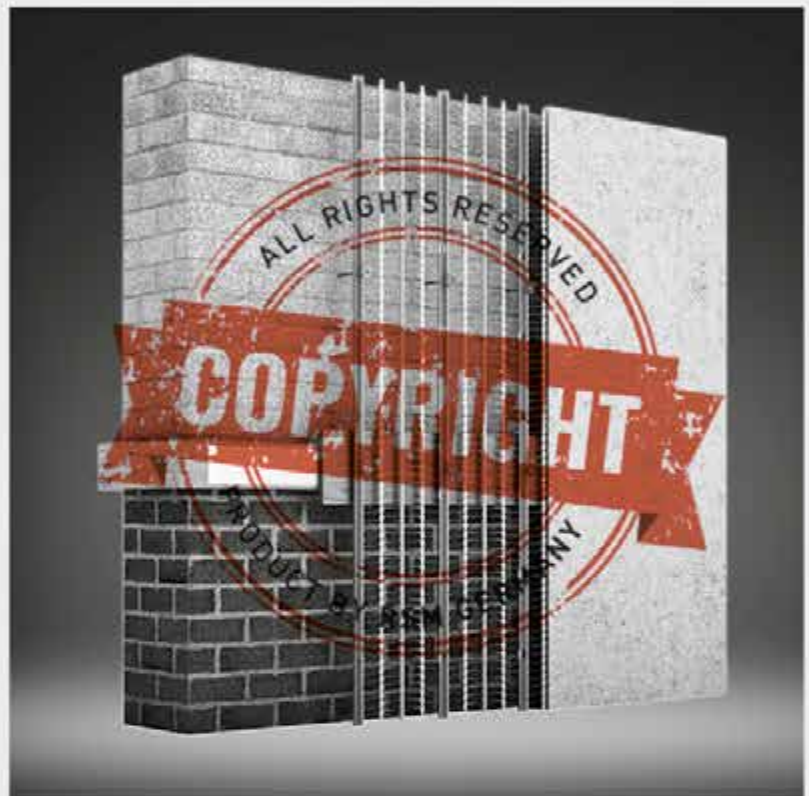
RIP®-SERIE
processing instructions

The best quality for all areas of use

THE RIP® SERIES MADE IN GERMANY BY RSM PROVIDES THE BEST RIBBED EXPANDED METALS FOR ALL PLASTERING/RENDERING WORK IN NEWBUILDS, RENOVATIONS AND LISTED BUILDING WORK

Benefits that count

The RIP® series made in Germany provides tangible cost advantages for fabricators, designers and specialist dealers.



Benefits at a glance:

- Easy, time-saving work without special tools.
- Rib heights of 4 mm or 10 mm for the utmost accuracy in the use of plaster / render.
- Easy to apply without double overlapping: over 10 % saving on materials.
- Problem-free fixing without expensive accessories: screws, nails or wire are sufficient.
- Excellent adhesion regardless of the plaster / render finish material: universal use for all applications except for rooms with high humidity (for which the right choice would be the stainless steel SUPERIP® version).
- Space-saving, safe to transport in whole bundles, open bundles can be secured with a simple wire.
- Economical to store: e.g. 1500 m² FLACHRIP® (corresponds to a pallet of 1000 60 x 250 cm panels, material thickness approx. 0.3 mm) on just 1.5 m² of warehouse space.

All-rounder for inside and outside



FLACHRIP®

A particularly economical carrier for plaster / render where mortar thicknesses are minimal and as support elements for lightweight constructions with minimal span widths.

Areas of use: newbuild, renovation, listed buildings



LOCHRIP®

Highly stable carriers for plaster / render with stiffening ribs, and carriers for lightweight constructions with long spans, also suitable for greater thicknesses of plaster / render.

Specialists with special characteristics

SUPERIP®

Carrier for plaster / render and construction element, made from stainless steel for particular requirements relating to corrosion protection, e.g. in rooms with high humidity such as indoor swimming pools and saunas.

Areas of use: newbuild, renovation, listed buildings



COMBIRIP®

Paper-lined carriers for plaster / render for sprayed finishes, and support elements for lightweight construction where sprayed finishes are used.



Variable use – perfect results

There are virtually no limits to the options for using ribbed expanded metal products. As their particular product-specific characteristics allow for tailor-made solutions for the most varied of applications:



Carriers for plaster indoors and render outside, e.g.

- For bridging chases and openings, as well as construction elements made from Steel or timber
- Renovation of old plaster / render

Construction element for lightweight building components e.g.

- Cladding of chases and shafts
- Suspended ceilings conforming to DIN 4102
- Lightweight vaulting
- All types of plaster fabric wall e.g. Aprons, boxing in etc. and also Plaster fabric wall construction with higher level self-supporting characteristics
- Cladding for lintels and beams
- Fire protection conforming to DIN 4102-4



Practical example of FLACHRIP® carrier for plaster / render

Economical solution for minimal thicknesses of plaster / render

With a rib height of just 4 mm, FLACHRIP® is a very economical solution for renovating rendered façades with varying material and building fabric backing for which only a thin layer of render is required.

Alignment

FLACHRIP® is arranged with the closed rib towards the base to be plastered / rendered. The continuous area must not exceed 30 m². Building joints must be accommodated and must under no circumstances be plastered over. When using for bridging building components, FLACHRIP® must overlap the loadbearing base by a minimum of 10 cm all-round and must only be fixed to this.



Masonry, concrete and timber



Fixing

- To masonry and concrete: using RIP-FIX® or anchor fixings
- To steel, timber and wood-wool lightweight building board: Cover the base with breathable oil paper or similar material (prevents bonding with the plaster), then fix FLACHRIP® using RIP-FIX®, anchor fixings or pins.
- When bridging backings for plaster, approx. 8 fixings per m² are required.



Plasterwork

- Fair face: overlap with a thickness of at least 15 mm
- Plaster reinforcement: if prescribed, add additionally

Practical example:

LOCHRIP® carrier for plaster / render:

Renovation of timber frame

Spanning timber loadbearing structure permanently and securely

For uses with higher demands, LOCHRIP® which is reinforced with stiffening ribs with a rib height of 10 mm and clear spans of up to 100 mm, provides a strong, secure solution.



Alignment

When renovating timber frame buildings with flashing over the whole area, LOCHRIP® sheets are positioned horizontally offset (bond). The open ribs always point towards the render to be applied. The edge ribs are laid inside one another and tied at 15 to 20 cm intervals with 1.2 mm thick galvanised wire. At the head joints, the ribs must be laid at least 5 cm inside one another and also tied with galvanised wire at every rib.

Fixing

Preparation:

- Stretch breathable oil paper or a similar material over the timber frame (to protect the timber from damp)
- Exclusively in the space between the timbers, if the strength of the nogging allows: using RIP-FIX®, lightweight building board nails or anchor points (minimum of 8 per m²)

Or:

- Exclusively on the uprights, if fixing in the nogging is not possible: using RIP-FIX® or pins (minimum of 8 per m²)

It is important to avoid nailing them on too tightly and deforming the ribs.

Plasterwork

- Fair face: covering with a thickness of at least 15 mm
- Render reinforcement: work into the base layer diagonally at the corners of building openings

Practical example: FLACHRIP® construction element: Chase and shaft cladding

For use with or without a substructure

Due to its minimal rib height of just 4 mm, FLACHRIP® is eminently suitable for use as a construction element for pipe chase and installation shaft cladding which saves plastering materials and therefore also costs: up to 35 cm wide without substructure, up to 100 cm wide with substructure.

Alignment and fixing



Without substructure

Lay FLACHRIP® with the ribs horizontal to the chase or shaft and take it at least 10 cm over each side of the adjacent masonry. Fix using RIP-FIX® or suitable steel pins approx. 30 cm apart, in such a way that the wide head of the pins hold the ribs but do not deform them. Important: Do not nail the steel pins through the ribs – the shaft should sit next to the ribs!



With substructure

Embed 8 mm round steels in the masonry gaps and, depending on the type of plastering mix, fix using dabs of gypsum or cement plaster. Then lay FLACHRIP® with the ribs vertical to the round steels and take it at least 10 cm over each side of the adjacent masonry. Fix the FLACHRIP® every 20 cm with galvanised tying wire to the round steel bars. Offset the fixing points to one another.

Use of insulation material

If pipe chases or installation shafts are filled with insulation material before plastering, the ribbed expanded metal which also serves as formwork, must be held onto the wall surfaces with strips of gypsum plaster or cement render.

Plasterwork

- Fair face: covering with a plaster thickness of at least 15 mm



Practical example: LOCHRIP® construction element: Lightweight vaulted constructions

Suspended lightweight vaulting

Technically and optically perfect results can be achieved in listed building and restoration work using LOCHRIP®, e.g. as construction element for suspended lightweight vaulting. With self-supporting spans of up to 100 cm it is possible to create even large dimension vault formations with both safety and precision.

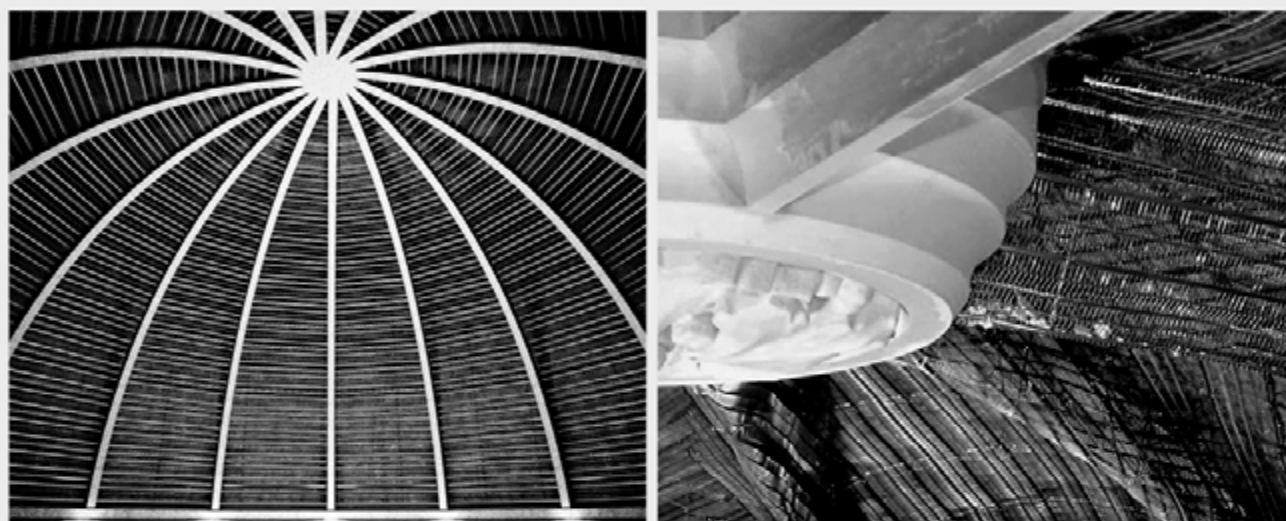
Alignment and fixing

Suspended support bars at least 7 mm thick, shaped to the desired vaulted shape using cradling, form the substructure for the LOCHRIP® sheets. The sheets are aligned at right angles to the support bars and fixed at each rib to the bars using galvanised tying wire with a thickness of at least 1.2 mm.

If there are increased requirements in terms of corrosion protection, instead of LOCHRIP®, the stainless steel version SUPERIP® should be used.

Plasterwork

- Before applying the plaster mix apply "Paris staffs" as bedding dots
- Fair face: covering with a thickness of at least 15 mm
- Max. plaster thickness up to 100 cm free span width: 25 mm



Self-supporting lightweight vaulting

The high stability of the reinforced LOCHRIP® makes this ribbed expanded metal product into a technically and economically ideal construction element for self-supporting lightweight vaults with large radii and spans. The basic construction of the vault is formed by a rib construction and a load-bearing construction consisting of round steel rods with a minimum diameter of 7 mm or similar profiles.

Alignment and fixing

LOCHRIP® is installed into the loadbearing construction by aligning it at right angles to the the rods. To do this, all ribs are fixed to the rods using galvanised tying wire of at least 1.2 mm diameter. Cutting the ribbed expanded metal, aligning and the configuration of joints must conform to the manufacturer's guidelines. Where spans are small, a particularly economical solution can also be achieved with FLACHRIP®. Where there are increased requirements for corrosion protection, we recommend using SUPERIP®.

Plasterwork

- General: before applying the plaster mix apply "Paris staffs" as bedding dots
- Fair face: covering with a thickness of at least 15 mm

Practical example: LOCHRIP® construction element: Design features and fire protection

Cornices, coving and false beams

Architectural design features such as cornices, coving and false beams can be created with both technical and visual perfection using LOCHRIP® as a construction element, particularly in listed buildings and renovation projects.



Alignment and fixing

Where the cornice cross section is small and roll-out dimensions below 30 cm LOCHRIP® is fixed directly with the steel rods to the wall or ceiling with the ribs running lengthways. Where cross-sections and roll-out dimensions are greater, it makes sense to have a substructure of load-bearing rods (round steel, 5 mm diameter) which are curved to a template and fixed to the wall or ceiling. The distance between the load-bearing rods will be dictated by the dimensions of the plaster object to be created. Finally, the LOCHRIP® is fixed to the support bars using galvanised tying wire at least 1.2 mm thick. If there are increased requirements in terms of corrosion protection, instead of LOCHRIP®, the stainless steel version SUPERIP® should be used.



Applying the plaster

- General: as rough run and finishing run with sheet metal and run templates
- covering with a thickness of at least 15 mm



Fire protection cladding for columns and beams

Particularly in the field of listed building restoration, LOCHRIP® can be used to provide safe and economical fire protection cladding for columns and beams – including those made of steel. Fire resistance classifications from F-30 to F-180 are achievable without any problem, depending on the geometry of the building component (U / A value in accordance with DIN 4 102, Part 4).

Alignment and fixing

Support rods from 7 to 10 mm thick are used for the substructure of the LOCHRIP® sheets. The distance between them will depend on the geometry of the column and the maximum permissible clear span width of LOCHRIP®. The sheets are aligned parallel to the support bars, and each rib is fixed to the bars using galvalised tying wire at least 1.2 mm thick. If there are increased requirements in terms of corrosion protection, instead of LOCHRIP®, the stainless steel version SUPERIP® should be used.

Plasterwork

- Plaster thickness: in accordance with the fire protection requirements as per DIN 4102, Part 4, section 6.2 and 6.3

Processing: easy, safe and cost-effective



Easy to cut

- RIP® sheets can be cut using metal shears, a cutting disc or the special RSM cam shears. Any deformation of the rib must be avoided.
- Tip: In order to shorten the width, an experienced craftsman would separate the material with a customary trowel.



Secure alignment

- The backs of the ribs point to the backing for the plaster or the substructure, so that the ribs act as spacers.
- The rib opening points towards the plaster mix being applied
- Ribbed expanded metal sheets must be laid to bond; diagonal joints are permissible

Material-saving joint formation

Long side

- Lay the edge ribs of the RIP® sheets inside one another and tie them together every 15 to 20 cm using galvanised tying wire (\varnothing approx. 1,2 mm)



Head end

- Lay the end sections of the RIP® sheets with the ribs overlapping ≥ 5 cm. Tie each rib once or twice with tying wire



Plasterwork

- A plaster covering of at least 15 mm must be adhered to on the visible side

RIP-FIX® fixing technology: Convenient fixing for every kind of background

By using the special RIP-FIX® fixings for FLACH-RIP®, LOCHRIP® and COMBIRIP® developed in-house at RSM, you have the assurance of being able to fix ribbed expanded metal products accurately and without deformation onto timber, masonry, ordinary concrete or reinforced concrete. The result is: a seamlessly tailored carrier system for plaster and render which offers the craftsman a perfect plaster finish.



FLACHRIP®

- Place 2 bridging pieces between the ribbed field and then fix the bent angle into the rib

LOCHRIP®, COMBIRIP®

- Fix RIP-FIX® with the bowed part in the rib hole, then place 2 bridging pieces between the ribbed field

Generell

- Use the 7 mm perforation as a drilling jig (6 mm drill bit) Fix RIP-FIX® with a nail anchor 6 x 60 mm or 6 x 80 mm
- For a timber backing use a 4.5 x 45 mm timber screw
- Important: The ribs must not become damaged or deformed during fixing
- Depending on the base approx. 8 RIP-FIX® per m² are required; on critical bases this should be at least 10 RIP-FIX® per m².

RSM Services: competence and reliability

Make the most of our special services with personal consultation and support for fabricators, developers and specialist companies:

- Expert personal consultation at all stages of project planning
- Tailored building site service with 100 % adherence to deadlines
- Trusting working relationships with specialist companies

We also supply you with a whole host of print media designed for daily work, free of charge:

- Detailed instruction manuals
- Comprehensive sample specifications

Ribbed expanded metal / Fixing technology						
Material	FLACHRIP®	LOCHRIP® reinforced 0,3	LOCHRIP® reinforced 0,5	COMBIRIP®	SUPERIP®	Fixing technology RIP-FIX®
Cold-rolled steel strip	•	•	•	•		
Galvanised	•	•	•	•		
Paper-lined				•		
Stainless-steel 1.4301					•	
Area of use						
Inside	•	•	•	•	•	•
Outside	•	•	•	•	•	•
Newbuild	•	•	•	•	•	
Renovation	•	•	•	•	•	
Conservation of historical buildings	•	•	•	•	•	
Delivery information						
Rib height mm	4	10	10	10	10	
Material thickness mm	0,3	0,3	0,5	0,3	0,3	
Self supporting span in the direction of the ribs up to mm	350	750	1.000	750	750	
Width cm	60	60	60	60	60	
Weight kg/m ² (approx.)	0,72	1,173	1,873	1,195	1,4	
Sheet size [mm x mm] options for all thickness	2.500 x 600	2.500 x 600	2.500 x 600	2.500 x 600	2.500 x 600	
Area [m ² /pallet]	1.500	1.050	750	675	525	
Sheets per pallet	1.000	700	500	450	350	
Sheets per pack	20	20	10	15	10	

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