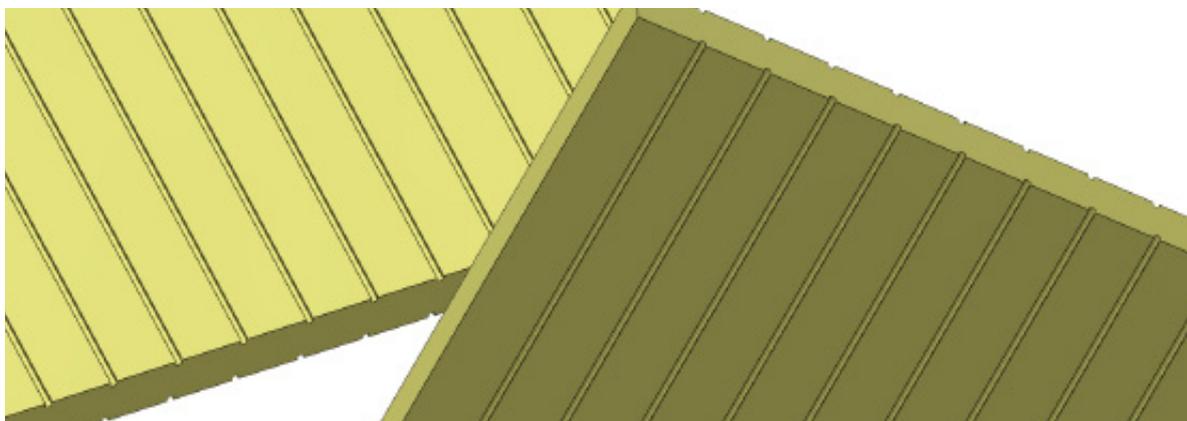


# Finishing | Flow

## Grooved

GR material provides good air evacuation and resin flow in closed vacuum assisted processes.



### Description

Grooved finishing features grooving on one or two sides of the core, the configuration of grooves can be designed to suit different needs, see process characteristics for further information.

The grooves transport resin and evacuates air in an efficient robust way. Suitable for manufacturing of thicker sandwich panels or where efficient and high production volumes are critical.

GR finishing is not recommended to face surfaces where there is a high demand on the surface finish, however grooved in combination with perforations can be a suitable option, see Grooved and Perforated data sheets.

### Benefits

- Robust and secure distribution of resin
- Ensures reliable wet out of fibres
- Reduce need of distribution medias
- Facilitating fast lay-up of infusion strategy

### Typical application areas

- Panels
- Bulkheads & stiffeners

### Standard Finishing finishing types<sup>1</sup>

Configuration	GRC4	GRC6	GRC8	S007 <sup>2</sup>	S014 <sup>2</sup>
Dimension cuts, D, W	2x2mm	2x2mm	2x2mm	1x2mm	1x2mm
Distance between grooves	20mm	20mm	20mm	100	50
Orientation grooves <sup>3</sup>	0, 90°	0°	90°	0, 90°	0°
Placement grooves	Top & bottom	Top & bottom	Top & bottom	Top & bottom	Top & bottom

1. Customized alternatives can be available upon request

2. S007 and S014 are intended for evacuation of air, typically in bonding processes

3. 0° or 90° orientation versus length of full size sheet.

## PROCESS CHARACTERISTICS

The design of the grooves (width, depth and distance between them) in combination with the perforations yields a fast flow and a proper saturation of fibers and core surface, which secures a good bond line.

The material can be ordered with grooves on both sides of the core and in both 0° and 90° angle, which can be useful when doing infusion when having a thicker core. If resin saving is in focus, the material can be ordered with grooves in one direction only on one side of the core, which can be a good solution when having thin laminates. Please note that grooves can cause imprint on the surface versus only having perforations against the mould.

## FINISHING SOLUTIONS

Diab utilizes a combination of its complete range of finishing options to provide an optimized solution based on customers' requirements and objectives. Should the standard range not fulfill the needs, tailor made cuts and solutions can be defined and developed. Normally this is not needed as the range of options and Diab competence covers majority of needs in various industries.

## KITS

To fully optimize the application for cost, performance and quality Diab can engineer and design a core kit delivered in lay-up sequence. The kit of precut pieces is optimized for mechanical requirements, lay-up, manufacturing process, cost and quality objectives. The kit is produced by our skilled personnel using a combination of traditional and CNC equipment to achieve the desired result.

By working with kits our customers gain access to the full competence of Diab in terms of engineered design, core materials and range of manufacturing techniques, all having a profound impact on the ability to reach the objectives of the application from cost, quality and performance point of view.

### Disclaimer:

This data sheet may be subject to revision and changes due to development and changes of the material. The data is derived from tests and experience. If not stated as minimum values, the data is average data and should be treated as such. Calculations should be verified by actual tests. The data is furnished without liability for the company and does not constitute a warranty or representation in respect of the material or its use. The company reserves the right to release new data sheets in replacement.

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