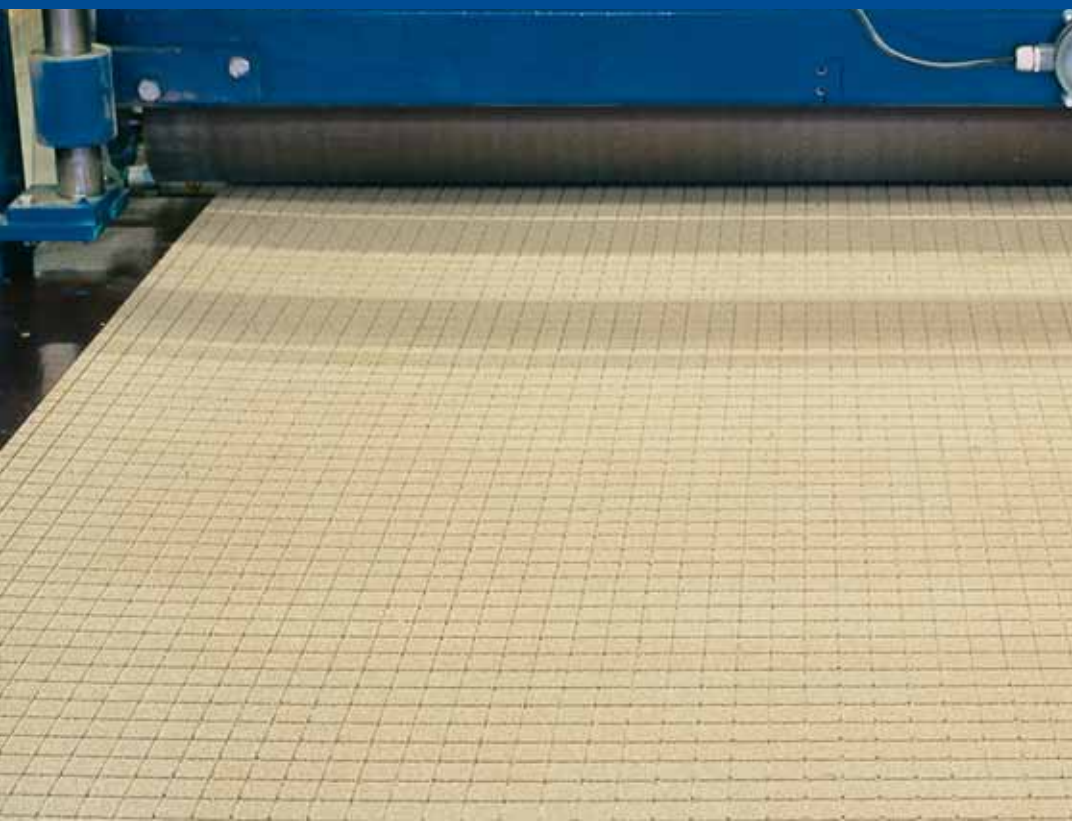


Standard Finishing



Grid scored with scrim

Double contoured

Perforated

Grooved










Combination grooved &
perforated

Single contour

Tight thickness tolerance



DIAB Standard Core Finishes

| Style | Designation | Description | Application | Molding Process |
|-------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Plain Sheet  | PSC | Simple sheets with no surface treatment | Hand lay-up One-off construction Press Molding applications Thermoforming | Hand Lay-Up Closed Molding Press Molding |
| Grid Scored with Scrim  | GSC | A cut pattern on one side of the core in both the length and width direction creating small blocks. The blocks are held together by a light weight fiberglass scrim creating a very flexible core sheet. | Bonding core to simple or slightly complex surfaces. May be used with a chopped mat bedding layer, but vacuum bagging or bedding into core bonding adhesive is strongly recommended to fill the cuts between blocks. | Hand Lay-Up Vacuum Bagging Closed Molding |
| Double Contoured  | DCC | A cut pattern where both sides of the core are cut in both directions to a depth of 55-60% of the core thickness creating a somewhat flexible core sheet. | Bonding the core to very simple or minimally complex shapes. Can be used with chopped strand mat bed layers but vacuum bagging or bonding with core bonding adhesive is recommended to fill the cuts. | Hand Lay-Up Vacuum Bagging Closed Molding |
| Perforated  | PFC | Perforations in the sheet ranging in diameters from 1.6mm to 3.2mm depending on core thickness and density. | Perforations are designed to release trapped air from under the core and or allow resin to flow from one side of the core to the other. | Hand Lay-Up Vacuum Bagging Closed Molding Press Molding |
| Grooved  | GRC | Groove patterns in the sheet surface. Grooves available on one or both sides and in length and width directions. | Intended to allow resin to flow in closed molding applications like infusion as well as expel trapped air. | Closed Molding |
| Combination Grooved & Perforated  | GPC | Grooved on one side with 2 mm diameter perforations in the grooves. Grooves are available in length and/or width directions with 20 mm spacing between the grooves. | Specially intended for resin infusion processes such as the DIAB Core Infusion process. Provides optimum flow speed and secure wet-out. | Closed Molding |
| 'V' Grooved  | GRV/GSC | Grooved material using tapered knife blades. Sheets are grooved, along the sheet at 30 mm spacing. GRV in combination with GSC creates a perforation which enables air and resin flow. | The GRV/GSC combination has been developed for the DIAB infusion process. | Closed Molding |
| Single Contour  | SCC | A cut pattern where one side is cut in the length direction and the opposite side in the width direction creating a perforation which enables air and resin flow. The depth of the cut is dependent on the core thickness, but can be up to 90% of the core thickness. | Bonding the core to very simple or minimally complex shapes. Can be used with chopped strand mat bed layers but vacuum bagging or bonding with core bonding adhesive is recommended to fill the cuts. | Hand Lay-Up Vacuum Bagging Closed Molding |
| Tight Thickness Tolerance  | TC | Target thickness specified by the customer with $\pm 0.25\text{mm}$ tolerances. | Closed molding or press molding where the core thickness is critical. | Closed Molding Press Molding |

DEFINITIONS & NOTES

Hand Lay-Up



A process where fibre/resin laminates are molded against a male or female tool that is open to the atmosphere.

Closed Molding



A process where the resin system is fully contained in the tool and no vapors are allowed to escape to atmosphere.

Press Molding



A process where some form of mechanical press is used to consolidate the fiber/resin matrix.

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We are a world leader in the provision of innovative sandwich composite solutions that make our customers products light, strong and competitive.

DIAB's offerings include high performance core materials, cost effective kits and a comprehensive range of engineering and process support services.

We provide composite solutions to a wide range of markets including: wind energy; commercial, military and pleasure marine; transportation; aerospace; industry and construction.

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