

Ahlstrom Combination products are particularly designed for applications where laminate rigidity and strength are required. They are easy to handle and very versatile.

Reinforcements Combination products

Applications

Ahlstrom Combination products are multipurpose products suited for a wide range of production methods: hand lay-up, filament winding, pultrusion, continuous laminating and closed moulds. They are very popular reinforcement in boat building but can be found in pipes and tanks, wind generator blades as well as in many other industrial applications.

Product description

Ahlstrom Combination product comprise two or more layers. The most common form is a layer of woven roving stitched together with chopped strand mat. The woven layer provides strength and rigidity while the mat layer gives a smooth surface to the laminate.

These products offer also an efficient way to increase thickness and stiffness of a laminate. The easy lay-up in the mould and very high wetting capacity increase productivity.

The binder free Ahlstrom Combination product is compatible with various types of resins.

Approvals

All Ahlstrom Glassfibre operations are certified according to ISO9001 standard. Certain products are also approved by classification standards e.g. Det Norske Veritas, Bureau Veritas, Germanischer Lloyd and Registro Italiano Navale.



Small fibers. Big difference.

Properties

| PRODUCT SPECIFICATION (some examples of our product range) | | | |
|--|-----------------|-------------------------|-----------------------|
| | Product code | Weight g/m ² | Thickness mm ISO 4603 |
| STITCH BONDED | 9679/M300 | 300+300 = 600 | 0.73 |
| | M150/9631Z/M150 | 150+500+150 = 800 | 0.93 |
| | 9650Z / M300 | 600+300 = 900 | 1.00 |
| | 9821/ M300 | 610+300 = 910 | 1.00 |
| | 9622Z/ M450 | 810+450 = 1260 | 1.43 |
| | 9816 / M300 | 1500+300 = 1800 | 1.55 |
| POWDER BONDED | P-9679/M300 | 300+300 = 600 | 0.74 |

| Products available | |
|---|----------------------------|
| Weight of woven part | any woven roving type |
| Weight of mat layer available on both sides of woven roving | 100 - 600 g/m ² |
| Widths - standard width | 10 - 250 cm 125 cm |
| Roll lengths | 50 - 100 m |

Storage

Combination products must be stored in a cool, dry area. The recommended temperature is between 10 and 35 °C and the relative humidity between 35 and 75 %. If the product is stored at low temperature (below 15 °C), it is recommended to condition the material in a workshop at least 24 hours before use.

Standard Packaging

Ahlstrom Combination products are wound on a cardboard tube (internal diameter 76 mm), wrapped in PE film and set on wooden, one way pallet. Each pallet is shrink wrapped. A detailed description of packaging is available on request. Other tube diameters for specific use are available.

This leaflet is issued without obligation. All issued specifications reflect the present status but are subject to change without notice.

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Glass nonwovens

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