

Product Introduction

The boron-free glass fiber provides higher mechanical properties (modulus of elasticity) than E glass, superior chemical corrosion resistance, especially very similar acid resistance with traditional ECR glass. Without any content of B_2O_3 and F_2 , Boron-free glass is environmental-friendly throughout all its production process. S-AB Boron-free glass Multi-End Continuous Rovings are reinforcements for sheet molding compound (SMC). These products are designed for a wide range of structural or pigmentable polyester compression molded applications. SMC applications include automotive exterior body panels with Class A surfaces, recreational vehicle housings, automotive and recreational semi-structural applications, water tank panels, and business equipment.

Product Description

S-AB Boron-free Multi-End rovings are manufactured to meet ISO 9001 standards. S-AB rovings are produced from a collection of continuous glass filaments gathered, without mechanical twisting into a single bundle. The filaments, which make up the bundles, are bonded together with a special size.

Multiple bundles are then pulled together to form a strand. The strand is wound into a tubeless package that is ready for use in customer applications.



Packaging

Pallet dimensions

Pallet height, cm (in) 99 (39) or 127(50)

Pallet length, cm (in) 112 (44)

Pallet width, cm (in) 112 (44)

48-roll pallet weight, kg(lb) 816 (1799)

64-roll pallet weight, kg(lb) 1088 (2399)

S-AB Multi-End Continuous Roving is available in a single end internal pull package. Each pallet contains four layers with 16 doffs per layer (64 per pallet) or three layers with 16 doffs per layer (48 per pallet). Doffs are available in weights 17kg (37.5 lb), and are wrapped in a plastic bag, then packed in a cardboard box. All pallets have ends that are air-spliced together. 4-end or 16-end run-outs are available dependent upon specific customer requirements.

Storage

Unless otherwise specified, it is recommended to store glass fiber products in a cool, dry area. Temperature should not exceed 35°C (95°F) and the relative humidity should be kept below 75%. Glass roving products must remain in packaging material until just prior to its use. If these conditions are respected, the glass fiber product should not undergo significant changes when stored for extended periods of time.

Stacking

To ensure safety and avoid damage to the product, skids should not be stacked more than two high. When stacking two pallets high, care should be taken to correctly and smoothly place the top pallet.

Features	Customer Benefits
SMC Rovings for Class A surface	Excellent mold flowability to allow production of large Class A parts with low defect rate
Fast wetting properties	Fast-wet through, low squeeze-out to maximize line speed and maintain tight sheet weight tolerances
Superior runability	Optimized to maximize equipment uptime
Low static and fuzz	Chemistries are specifically designed to virtually eliminate static and reduce fuzz and fly. Negligible static build-up under the normal ambient condition (temperature between 15 and 30°C, and relative humidity <70%)
Excellent chopability	Products can be chopped cleanly with minimal blade and cot wear
Excellent dispersion	Flat dispersion characteristics eliminate clumping
Excellent laminate mechanical properties	Meets or exceeds physical property requirements for a broad range of applications
Optimum package weight	More products per package and pallet allow longer run time before more materials is needed at the chopping station

Product Data

For structural applications

ID Number	Fiber Diameter (Microns)	Linear Density (TEX/Yield)	End Counts	% R ₂ O Content	Sizing Type	Compatible Resin
S1-440-AB	14	4400/113	56	< 0.80	Silane	Polyester
S3-440-AB	13	4400/113	90	< 0.80	Silane	Polyester

ID Number	% Organic Solid (LOI)	% Moisture Content	% Acetone Solubility	Stiffness (mm)	Application Field
S1-440-AB	1.55 ± 0.20	≤ 0.20	55 ± 10	155 ± 20	Structural / Pigmentable Parts
S3-440-AB	1.55 ± 0.20	≤ 0.20	50 ± 10	140 ± 20	Structural / Pigmentable Parts

SMC Laminate Properties

Property	Average Value	Test Method
Tensile Strength (Mpa)	80.3	GB/T1447-1983
Flexural Strength (MPa)	170.9	GB/T1449-1983
Impact Strength (Notch, J/m ²)	62.9	GB/T1451-1983

* Reference data only, not for technical specifications. Glass content: 33%

Disclaimer of Liability

This data is offered solely as a guide in the selection of a reinforcement. The information contained in this publication is based on actual laboratory data and field test experience. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume any liability arising out of its use or performance. The user, by accepting the products described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production. It is important for the user to determine the properties of its own commercial compounds when using this or any other reinforcement. Because of numerous factors affecting results, we make no warranty of any kind, express or implied, including those of merchantability and fitness for a particular purpose. Statements in this data sheet shall not be construed as representations of warranties or as inducements to infringe any patent or violate any law, safety code or insurance regulation.