



CUSTOMER ACCEPTANCE STANDARDS

Nº: ECS 114
Date:2015.02.01
Supersedes: 2013.01.24

VITROSTRAND MILLED FIBERS Europe Middle East Africa

I. DESCRIPTION

Owens Corning VITROSTRAND Milled Fibers are engineered E-glass / Advantex® filaments that have been milled into various bulk densities to form powders or floccular masses with specific chemical sizings to maximize end-use performance.

II. USE

Milled Fibers are used as reinforcement and filler medium in plastics composites, adhesives and coating to enhance mechanical properties, increase modulus, improve dimensional stability and minimize distortion under elevated temperatures.

The fibers are compatible with thermoplastics materials (including PTFE) and thermoset materials such as polyester, phenolic, silicones & epoxy. Milled fibers are also compatible with most asphalt, putties, patching cements & others coating.

III. AVAILABLE PRODUCTS & THEIR PROPERTIES

Product Name	Nominal Fiber Diameter (µm)	Average Fiber Length (µm)	Appearance	Primary/Recommended Use
VS1320K	13	160	Floccular	Thermoplastic & Thermoset (Polyester, Epoxy, Phenolic) compounds. Reinforcing repair putties.
VS1304	13	80	Powder	Thermoplastic & thermoset (Polyester, Epoxy, Phenolic) compounds. Painting applications
VS1360	13	60	Powder	Un-sized** glass to reinforce fluoropolymers (PTFE) & others high temperature polymers where organic materials are not desired

K = lubricant in the formulation

** VS1360 products contain no measurable quantity of organic sizing

IV. SIGNIFICANT PHYSICAL CHARACTERISTICS

CHARACTERISTICS	METHOD OF MEASUREMENT	INDIVIDUAL VALUES		
		Minimum	Nominal	Maximum
MOISTURE CONTENT (%) *as produced for all Vitrostrand family	ISO 3344	-	-	0.08
BULK DENSITY - fibers freely settled (g/cm³)	Internal method			
VS1320K		0.30	-	0.80
VS1304		0.80	-	1.30
VS1360		0.80	-	1.30



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BULK DENSITY - tapped fibers (g/cm³)*				
VS1320K	Internal method	0.50	-	0.90
VS1304		1.35	-	-
VS1360		1.35	-	-

(*) Provided on certificate of analysis upon request

V. SIGNIFICANT VISUAL CHARACTERISTICS

Visual properties	
Color	The product shall be white to off-white in color.
Contamination	Containers shall be free of the following : contamination caused by dirt, oil, grease, dye..., foreign matter, long fibers (see § 4) Product shall be free of fuzz balls or clumps of fuzz > 9 mm in diameter

VI. SPECIAL PRECAUTIONARY NOTE

In the event that Owens Corning or the customer has reason to suspect that a shipment may contain out of spec material, the party first suspecting such condition will notify the other, and Owens Corning will assume responsibility for initiating appropriate action. The use of the suspect material should be discontinued pending an investigation of the facts.

Note that Owens Corning must be notified of any quality issue within six months of receipt of Material to enable problem analysis and resolution.

VII. PREPARATION FOR SHIPMENT

A. PACKAGING

1. Milled Fibers shall be packed in corrugated cartons or polypropylene bags of sufficient strength to ensure adequate protection during transit and stores.
2. Products are packed as follows:

STANDARD (Europe):

Product Name	Bag net weight (kg)	Number of bags per pallet	Pallet dimensions L x W x H (mm)	Pallet Net Weight* (kg)
VS 1320 K	25	20	1150 x 850 x 1000	500
VS 1304	25	20	1150 x 850 x 1000	500
VS 1360	20	25	1150 x 850 x 1000	500

(*) Add 30 kg to obtain the approximate gross weight

SPECIALITY (Europe):

Upon customer's request, Vitrostrand Milled Fibers may be packed in Big-Bags as follows but, in this case, product compacting, especially on the bottom of Big-Bags, could occur giving blocks formation (no or poor product flowability) :



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Product Name	Big-Bag net weight (kg)	Number of Big-Bags per pallet	Pallet dimensions L x W x H (mm)	Pallet Net Weight* (kg)
VS 1320 K	1000	1	1100 x 1100 x 1300	1000
VS 1304	1000	1	1100 x 1100 x 1300	1000
VS 1360	1000	1	1100 x 1100 x 1300	1000

(*) Add 25 kg to obtain the approximate gross weight.

We recommend Bulk Bags not to be stacked 1 / 1. Stacking of material is solely the responsibility of the User. We recommend pallets not to be racked in an accumulation rack. Racking pallets is solely the responsibility of the User.

B. LABELLING

Pallet identification

Each container shall bear 2 labels giving the following information:

- | | |
|------------------------------|--|
| - Product reference | - Net and gross weights in kg/lbs |
| - Packaging and product code | - Identification code of the palletized unit |
| - Production date | |

Small individual packaging identification

The product reference and the nominal net weight in kg & lbs are printed on each small bag/box.

C. STORAGE CONDITIONS

Stacking of material is solely the responsibility of the User.

Milled Fibers must be stored in a dry and temperate location. The product should remain in its original packaging, preferably closed, until just prior to use. When stored properly, there is no known shelf life to the product, but retesting is advised after three years from the initial production date to insure optimum performance.

Note: If the storage temperature is less than 59°F (15°C), it would be advisable to put the pallets in the processing area for a minimum of 24 hours before use. This is to avoid condensation.

The product can be stacked one plus one but it is recommended to use a plywood plate between the two pallets in order not to damage the lower pallet.