



5MS.003

Rescor™ 310M Composite Cotronics®

Applications

- High-temperature insulation
- Electrical insulation
- Brazing and welding
- Sintering installations
- Beds and base structures of intense heating elements
- Various thermal screens
- Thermal reflectors
- Chemical reactors
- Filters, catalysers
- Laboratory crucibles

Physical variables included in this documentation are provided by way of indication only and do not, under any circumstances, constitute a contractual undertaking. Please contact our technical service if you require any additional information.

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Overview

Rescor™ 310M by our partner Cotronics® is composed of over 99 % pure fused silica. This ceramic product withstands continuous temperatures up to 1,650 °C. Rescor™ 310M pieces resist easily to heat shock and can be immersed in water without cracking after having been heated up to 1,000 °C.

Rescor™ 310M is also characterized by low thermal conductivity. It shows limited expansion, and is highly reflective to heat fluxes.

The product composition ensures good resistance to oxidizing atmospheres, and to corrosive vapours and gases, solvents, acids and molten metals.

Rescor™ 310M components contain no organic substances: they release no gases under a vacuum. They are easy to deploy: Rescor™ 310M can be cut, drilled and machined with no difficulties.

Coating and Adhesive Bonding

Rescor™ 310M ceramic material is porous. It must therefore be coated, for the sealing of pores and for surface hardening. Resbond™ 901 is ideal for all adhesive bonding operations.

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Technical Data

Property	Unit	Rescor™ 310M
Density	kg/m ³	800
Porosity	%	63
Max. Operating Temperature	°C	1,650
Thermal Conductivity	W.m ⁻¹ .K ⁻¹	0.18
Resistivity	Ω.cm	10 ⁹
Dielectric Strength at 20 °C	kV/mm	3.9
Dielectric Constant at 1 MHz		3.17
Loss Tangent at 1 MHz		0.0002
Thermal Expansion	10 ⁻⁶ K ⁻¹	0.54
Compressive Strength	MPa	8.27
Flexural Strength	MPa	3.58

Available Products

Item N°	Dimensions	Tolerance
310M-1	114.3 x 152.4 x 228.6 mm	from - 0.38 to + 1.52 mm
310M-2	114.3 x 228.6 x 304.8 mm	
310M-3	114.3 x 304.8 x 457.2 mm	

Custom-made products are available on request.

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