

GRAVICOL 2039 TC

BONDING PASTE - WITHOUT GLASS FIBER

Date sheet n° : 1011
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Assembly	Aid to lamination	Gap filling

DESCRIPTION

Pre-accelerated bonding paste based on unsaturated polyester resin. Cures at room temperature (15 - 25°C). Cured using MEKP peroxide.

APPEARANCE

TC : Contains catalyst indicator

USE AREAS

Product is suitable for many types of thin joint bonding of composite parts. Product designed for thin joints bonding in the assembly of composites with suitable polyurethane foam, Balsa wood, etc. ... The product meets requirements for the operations of gap filling, surface filling and sealing. The product can be used as a laminating aid.

APPLICATION

Surface to be bonded should be free from dust and contaminants which can adversely affect the bond adhesion strength. Preparation of surface is recommended using light abrasion / sanding followed by cleaning with appropriate solvent. The bonding paste is ready to use and reaction is initiated using the correct dosage of correct peroxide. Typical dosage is 1% to 2% w/w under normal workshop application conditions (15-25°C). Mix thoroughly to ensure homogeneous catalyst dispersion (this is assisted by use of catalyst indicators which change colour in TC version). Apply a uniform bead of bonding paste onto one of the surfaces and press parts together evenly to obtain the desired thickness of bond. Typically the thickness of the joint should be between 0,7mm and 5mm. We recommend allowing sufficient time for cohesive bond to form between laminates before handling bonded parts (cf : MECHANICAL PROPERTIES AFTER CURING).

PROPERTIES / ADVANTAGES

Semi flexible bonding paste for dynamic bonding applications. Bonding paste without fibres for thin joints. Very smooth consistency, and easy to apply with a spatula or comb applicator. Bonding paste with very low shrinkage helping to avoid distortion of assembled parts .

STORAGE / SHELF LIFE

Shelf-life : 6 Months . When the product is sealed in its original packing, stored indoors away from direct sunlight and direct heat sources and ideally at ambient temperature between 15°C and 25°C .

TYPICAL CHARACTERISTICS : LIQUID (1)

Properties	Test method	Conditions	Unit	Typical values
Density	MT-C B 001 O	23°C	g/cm3	1,28 - 1,34
Viscosity	MT-C B 023 V	23°C - Spindle V73 - 0,5 rpm	mPa.s	3 000 000 - 4 000 000
Gel time	MT-C B 072 R	Catalyst : MEKP (250g - 23°C - 1% MEKP)	min	14 - 22
Peak time	MT-C B 072 R		min	30 - 50
Peak exotherm	MT-C B 072 R		°C	100 - 130

(1) Thoroughly test in your applications before full-scale use. Gel times may vary due to the reactive nature of these materials and due to different brands of curing additives. Always test on small scale before formulating large quantities.

TYPICAL CHARACTERISTICS : MECHANICAL PROPERTIES AFTER CURING (2)

Properties	Test method	Conditions	Unit	Typical values
Compressive strength	NFP 15-451		MPa	55
Flexural strength	NFP 15-451		MPa	35
Bond failure in the laminate	MT-C B 901 Q	20°C	h	6

(2) Properties are typical values, based on material tested in our laboratories, but varies from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

For all additional information, refer to the Safety Data Sheet n° FP 12431 available on our website.

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