

ICOM MC RESIN GR 9000-20 A VACUUM / INFUSION

CHARACTERISTICS

ICOM MC Resin GR 9000-20 A is a special low-viscosity, highly reactive, non-thixotropic, pre-accelerated unsaturated polyester resin with reduced heat generation during curing, which produce cured products with good thermal and mechanical properties, which are used in particular for large-volume infusion-moulded components such as blades for wind power generators.

The composition of **ICOM MC Resin GR 9000-20 A** positions it in Group 1 in accordance with DIN 18820 Part 1 and DIN grade 1140 in accordance with DIN 16946 Part 2.

USE

ICOM MC Resin GR 9000-20 A is particularly suitable for manufacturing GUP moulded parts. A special adjustment to the course of the reaction during curing makes **ICOM MC Resin GR 9000-20 A** particularly suitable for manufacturing thick-walled laminates (up to 40 mm).

The use of peroxide amounts above 1.5 % is not recommended, because of too high exothermal peak during curing.

ICOM MC Resin GR 9000-20 A is superior to moderately reactive UP resins wherever a higher heat distortion temperature is a requirement.

PROCESSING

ICOM MC Resin GR 9000-20 A should be processed at room temperature (15 - 25°C). Lower processing temperatures impair complete curing.

APPROVAL

Lloyd's Register, Certificate No. MATS/4649/1

ICOM MC Resin GR 9000-20 A is approved by Lloyd's Register. The product must be used in accordance with the manufacturer's instructions.

PHYSICAL PROPERTIES As supplied	UNIT	VALUE	TEST STANDARD
Acid number	mg KOH/g	max. 25	DIN 53402
Solids	%	55-59	DIN 16945
Flash Point	°C	34	DIN 53213
Styrene content	%	41-45	DIN 16945
Viscosity/Haake 23 °C	mPas	150-180	DIN 53018
Viscosity/Cone & Plate 23 °C	mPa.s	≤ 200	ISO 2884
Reaction behaviour 23 °C * - geltime 1% MEKP	min.	90-100	DIN 16945
Storage 25 °C	months	6	

* 100 gr. polyester + 1% MEKP (Peroxan ME 50 L)

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PHYSICAL PROPERTIES	UNIT	VALUE	TEST STANDARD
Fully cured			
Flexural strenght	N/mm ²	125	DIN EN ISO 178
Flexural modulus	N/mm ²	3300	DIN EN ISO 178
Outer Fibre strain	%	6.5	DIN EN ISO 178
Tensile strenght	N/mm ²	70	DIN EN ISO 527-2/1A
Tensile modulus	N/mm ²	3600	DIN EN ISO 527-2/1A
Tensile elongation (mean value)	%	3.5	DIN EN ISO 527-2/1A DIN EN
Tensile elongation (minimum value)	%	2.6	ISO 527-2/1A
Barcol hardness (mean value)	GYZJ 934-1	50	EN 59
Barcol hardness (ultimate)	GYZJ 934-1	55	EN 59
Heat deflection temperature (HDT)	°C	90-100	ISO 75 A

TRANSPORT AND STORAGE

Protect from direct moisture and heat during transport. Store in a cool place at a temperature not exceeding 25 °C, protected from moisture and localised overheating. Because of the particular accelerator system used to obtain long gel times and the reduced heat generation during curing, an impairment (increase) of the gel time cannot be ruled out, in particular as a result of the influence of air. Remedy any increase in the gel time, without altering the curing properties, by increasing the amount of peroxide added from 1% to a maximum of 1.5 %.

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All information is given, based upon our best knowledge, but without liability to us. Data has been obtained by laboratory experiments made by our supplier. Since the condition under which the product is consumed is outside of our control, the product should be tested before use.