

ICOM MC RESIN GR 9000-20 A(2) VACUUM / INFUSION

CHARACTERISTICS

ICOM MC Resin GR 9000-20 A(2) 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 injection-molded components such as blades for wind power generators.

The composition of **ICOM MC Resin GR 9000-20 A(2)** 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(2) 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(2)** 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(2) is superior to moderately reactive UP resins wherever a higher heat distortion temperature is a requirement.

PROCESSING

ICOM MC Resin GR 9000-20 A(2) 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(2) is approved by Lloyds 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 °C | mPa.s | ≤ 200 | ISO 2884 |
| Reaction behaviour 23 °C * - geltime 1% MEKP | min. | 30-35 | AV-F-G001 |
| Storage 25 °C | months | 6 | |

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

**ICOM MC RESIN GR 9000-20 A(2)
VACUUM / INFUSION**

| PHYSICAL PROPERTIES AFTER CURING | UNIT | VALUE | TEST STANDARD |
|---|-------------------|--------------|--|
| 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 ISO 527-2/1A |
| Tensile elongation (minimum value) | % | 2.6 | |
| Barcol hardness (mean value) | GYZJ 934-1 | 50 | EN 59 |
| Barcol hardness (ultimate) | GYZJ 934-1 | 55 | EN 59 |
| Heat deflection temperature (HDT) *fully cured | ⁰ C | 95-105 | ISO 75 A |

STORAGE AND HANDLING

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%

05/2016

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.

TECHNICAL DATA SHEET



ICOM MC RESIN GR 9000-20 A(2) VACUUM / INFUSION
