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POLYESTER 65.15 + HARDENER MEK-PEROXIDE

DESCRIPTION:
Orthopaedic unsaturated polyester resin with good reactivity, diluted to monomeric styrene. The resin is pre-accelerated and thixotropic; it has good wetting properties and chemical resistance.

- ✓ COBALT PRECURSOR
- ✓ THIXOTROPIC

APPLICATION:
General purpose resin; it is suitable for glass fibre impregnation in the production of STRONG PLASTICS with good mechanical properties.

PROCESSING:
Polyester 65.15 can be used with manual or automatic impregnation technologies.
Gel time and curing performance are dependent on the resin and shop temperature.
It is recommended to apply the resin at a temperature between 15°C and 40°C.

CURING CONDITIONS:
Curing catalyst should be 1.5% - 2.5% methyl ethyl ketone peroxide or acetyl acetone peroxide (AAP). To improve curing, it is possible to add 0.1% - 0.2% Cobalt Accelerator n.6 (cobalt octoate 6% conc.) or 0.1% - 0.2% Promoter DA (N, N-Diethylacetoacetamide).

CHARACTERISTICS OF LIQUID RESIN:
Resin ECO 1070

✓ Appearance	cloudy
✓ Color	pink to grey
✓ Viscosity at 25°C	160-220 mPas
✓ Styrene	38-42%
✓ Thixotropic index	1,6 - 2,7 Vi / Vm
✓ Acidity	15 - 28 mg KOH/gr
✓ Storage stability [1]	6 months

CHARACTERISTICS OF THE TYPICAL SYSTEM:
Processing Data:

✓ Gel time	9-12 min
✓ Exothermic peak	165-185°C
✓ Curing time [2]	16-24 min

[1] referring to the conditions mentioned in the paragraph "INSTRUCTIONS FOR HANDLING AND STORAGE".
[2] from catalysis to exothermic peak.

STYRENE EMISSIONS:
Static styrene emission from the resin during curing was measured according to our test method (106).
(Curing conditions: 2.0% MEK peroxide at 25°C).
Static styrene emission: 50-60 gr/m2

TYPICALLY CURED SYSTEM PROPERTIES:
Test preparation: 2.0% Mek peroxide was added to the resin. After 24 hours at room temperature, the cured resin was post-cured for 3 hours at 100°C.

✓ Specific gravity of cured resin at 23°C	1,190 - 1,210 g / cm3	Method ASTM D 792
✓ Volumetric shrinkage	8,6%	Method: ISO 3521

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✓	Barcol Hardness	48	Method: ASTM D 2583
✓	Water absorption (24 hours at 23°C)	0,15%	Method: ISO 62 method 1
✓	Water absorption (28 days at 23°C)	0,90%	Method: ISO 62 method 1
✓	Tensile strength	50 Mpa	Method: ISO 527
✓	Tensile modulus	4,200 Mpa	Method: ISO 527
✓	Elongation at Break	1.4%	Method: ISO 527
✓	Bending strength	130 Mpa	Method: ISO 178
✓	Bending modulus	3.060 Mpa	Method: ISO 178
✓	Heat distortion temperature (HDT, 1820 KPa).	73°C	Method: ISO 75 method A

HANDLING AND STORAGE INSTRUCTIONS

Polyester unsaturated resins are intended for professional use only.
Use protective clothing, goggles and gloves suitable for organic solvents.
Ensure good ventilation, especially at floor level (fumes and vapours are heavier than air).
Use approved masks (type A) for short exposures, wear respirators for intense and prolonged exposures. Use explosion-proof equipment and non-sparking tools and instruments, do not smoke.
Store in tightly closed original containers, away from sunlight, in a cool and ventilated place.
Storing the product outdoors, especially in translucent plastic containers (such as polyethylene or polypropylene), can cause gels to form and significantly reduce the stability of the resin.
The proper storage temperature is below 23°C. Heat increases pressure and the risk of explosion. Use caution when reopening drums.
Use stainless steel in the construction of fixed storage facilities, such as tanks, containers and pipes.
Take precautions against static electricity. Vapours released in accidental spills are heavier than air and may accumulate in low areas or spread to the ground. There may be a risk of fire or explosion.
Provide monitoring equipment to prevent losses and check for ignition sources.
Unsaturated polyester resins Polyester should be stored separately from oxidizing agents and catalysts (organic peroxides).
Dispose of waste and dirty materials properly.

Users should carefully read this Technical Data Sheet and the Product Safety Data Sheet.

The information in this technical data sheet has been developed based on our experience. Customers should carefully test the products before starting any industrial application. Our company is continuously improving all its products. Therefore, we rely on your understanding if modifications of the features still need to be reported. The values given here are only indicative and, unless otherwise agreed, do not represent official sales specifications. The present datasheet deletes and replaces all previously issued versions. For further information, contact the QC&RD. Laboratory.