Product Data Sheet

Atlac *E-Nova* MA 6325

DSM Composite Resins AG

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Atlac *E-Nova*

Atlac *E-Nova* is an evolutionary development building on 40 years of unsaturated polyester and epoxy vinyl ester (urethane) technology. Atlac *E-Nova* results in resin systems tailored to the needs of customers and end-users, offering enhanced properties over currently available vinyl ester resins.

Major applications

Atlac *E-Nova* MA 6325 is developed as high solid tie coat resin with a monomer content less than 35% for marine applications.

Chemical/physical nature

Atlac *E-Nova* MA 6325 is a pre-accelerated thixotropic, epoxy bisphenol A vinyl ester modified resin.

Principal properties

Atlac *E-Nova* MA 6325 has excellent wet out and air-release properties. It produces less foam when peroxides are added with less air inhibition resulting in a tack free cured surface.
Due to its high osmotic resistance Atlac *E-Nova* MA 6325 is used as a tie coat resin to eliminate blistering in marine and swimming pool applications. Since it contains less than 35% of monomer, Atlac *E-Nova* MA 6325 meets the SCAQMD 1162 rule.
Atlac *E-Nova* MA 6325 is especially adapted to meet the requirements of hand lay up and spray up applications.

Product specifications upon delivery

Property	Range	Unit	TM
Solids content, IR	65 - 67	%	2033
Appearance	Hazy	-	2265
Viscosity, Physica, 2 s-1, 23°C	1000 - 2000	mPa.s	2313
Viscosity, Physica, 20 s-1, 23°C	450 - 700	mPa.s	2313
Viscosity, Physica, 250 s-1, 23°C	250 - 350	mPa.s	2313
Water content	0.05 - 0.10	%	2350
Gel time from 25 to 35°C	25 - 31	Minutes	2625
Cure time from 25°C to peak	33 - 43	Minutes	2625
Peak temperature	125 - 155	°C	2625

Curing conditions
Conditions: 100 g resin + 1,50 g Butanox M 50
TM 2999: Curing agent batch nr. Peroxide Condtion Butanox M 50

Properties of the liquid resin (typical values)

Property	Value	Unit	TM
Flash point	appr. 33	°C	2800
Stability, no init., dark, 25°C	6	months	-

Properties of cast unfilled resin (typical values)

Property	Value	Unit	TM
Barcol hardness GYZJ 934-1	45	Barcol	ASTM D2580
Tensile strength	70	MPa	ISO 527-2
Tensile E-modulus	4.0	GPa	ISO 527-2
Elongation at break	2-3	%	ISO 527-2
Flexural strength	120	MPa	ISO 178
Flexural E-Modulus	4.0	GPa	ISO 178
Heat Deflection Temp. (HDT)	110	°C	ISO 75-A
Water absorption, 60°C,24h	0.5	%	ISO 175

Curing conditions
All properties are measured at 20°C unless otherwise specified.
Cure system: Atlac *E-Nova* MA 6325 and 1.5% Butanox M-50.
All samples were cured during 24 hrs at ambient temperature, followed by a postcure of 6 hrs at 100°C.

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Guidelines before use

Before use, the resin should be conditioned at a well-defined, application dependant temperature (usually 15°C minimum for a MEKP / Co cure). Stir the product before blending.

Storage guidelines

The resin should be stored indoors in the original, unopened and undamaged packaging, in a dry place at temperatures between 5°C and 30°C and the properties might change during storage. The shelf life of styrene containing unsaturated polyesters will be significantly reduced when exposed to light and/or higher temperatures. Store in dark and in 100% light tight containers only.

Material Safety

A material safety data sheet for the product is available on request.

Test methods

Test methods (TM) referred to in the table(s) are available on request.