

Introduction

espol™ 30.01 is a pre-accelerated isophthalic polyester resins which rapidly wets out reinforcements. espol™ 30.01 has a medium viscosity & reactivity and uses superior glycols compared to general-purpose resins, giving it good mechanical and good chemical resistance.

Applications

espol™ 30.01 is designed for hand laminating, spray up & casting applications. espol™ 30.01 is suitable for the fabrication of chemical tanks, industrial applications are marine applications.

Formulation

espol™ 30.01 should be allowed to attain workshop temperature (25°C - 30°C) before use. Stir well by hand, or with a low shear mixer to avoid aeration, and then allow to stand to regain thixotropy. espol™ 30.01 requires the addition of catalyst to start the curing reaction.

The recommended catalyst is MEKP (50%) which should be added to the resin at 1 - 2% and thoroughly incorporated into the resin, using a low shear mechanical stirrer where possible.

(Please consult our Technical Support Department if other catalysts are to be used).

Physical data - uncured

The following tables give typical properties of espol™ 30.01 when tested to IS 6746-1994 (Reaffirmed 2005).

Property	Unit	Liquid
Appearance	-	Pinkish
Specific gravity	-	1.10 - 1.12
Viscosity at 25°C*	cP	450 - 550
Acid Value	mg-KOH/gm	10 - 16
Volatile Content	%	34 - 40
Geltime at 30°C**	Minutes	9 -15
Peak Exotherm Temp**	°C	170 - 200
Stability from date of manufacture when stored in accordance with storage recommendations.	months	3

*Viscosity measured using Brookfield (RVT Model) Viscosity SPL 1 / SPD 10

**100g resin + 1.5ml MEKP (50%) Catalyst.

Physical data - cured

Property	Unit	Fully cured*
Barcol hardness		40
Deflection temperature under load* (1.80MPa)	°C	80 - 90
Tensile strength*	MPa	55 - 65
Tensile modulus*	MPa	3000 - 3200
Elongation at break*	%	2.5 – 3.0
Flexural strength*	MPa	100 - 110
Flexural modulus*	MPa	3100 - 3400

*Curing Schedule - 24 hours at 20°C, 6 hours at 80°C.

Post Curing

Satisfactory laminates for many applications can be made from espol™ 30.01 by curing at workshop temperature (25°C). For optimum properties, however, laminates should be post-cured before being put into service. The laminate should be allowed to cure for 24 hours at 25°C, and then be oven cured for a minimum of 6 hours 80°C.

Storage

espol™ 30.01 should be stored between 5°C and 25°C in the original, unopened container in a dry, well ventilated place. Protect from freezing and direct sunlight. Avoid contact with oxidising agents. If stored outside of these recommendations, shelf life will be significantly reduced.

Packaging

espol™ 30.01 is available in 35kg, 220kg and bulk containers.

Health and Safety

Please see separate Material Safety Data Sheet.

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