

POLYNT 1387 TAEP

Orthophthalic White Polyester Resin

DESCRIPTION

POLYNT 1387 TAEP is a white-pigmented, medium reactivity orthophthalic polyester resin. It is thixotropic, and has a built-in accelerator system that gives short gel times, followed by rapid cure and short demoulding times.

POLYNT 1387 TAEP contains special additives, which improve the working environment during, and after application, due to substantially reduced styrene emission. The resin contains wax, which gives the cured laminate a tack-free surface.

APPLICATION

POLYNT 1387 TAEP is suitable for both hand-layup and spray up application.

POLYNT 1387 TAEP is designed for marine, industrial and transport applications. The resin should be stirred to re-incorporate any settling that might occur on standing.

The recommended laminate thickness applied wet-on-wet, is between 1 and 4 mm.

FEATURES

- Excellent application properties
- Medium reactivity

BENEFITS

- Short application time
- Good fibre wetting
- High reinforcement content
- Good curing
- Short demoulding time

TYPICAL PROPERTIES

PHYSICAL DATA IN THE LIQUID STATE AT 23°C

Properties	Unit	Value	Test Method
Viscosity - Brookfield model LVF, Spindle 2 at 12 rpm - Cone & Plate	mPa.s (cP) mPa.s (cP)	1200 – 1400 170 – 200	ASTM D 2196-10 ISO 2884 – 1999
Specific gravity/ Density	g/cm ³	1.10	ISO 2811 – 2011
Acid number (max.)	mgKOH/g	24	ISO 2114 – 1996
Flash point	°C	32	ASTM D 3278-95
Styrene content	% weight	43 ± 2	B070
Gel time: 1% NORPOL PEROXIDE 1 (MEKP)	minutes	17 - 19	G020
Storage stability from date of manufacture	months	6	G180

All POLYNT products are Quality Controlled with the specified peroxide. However, alternatives are available and all users should be aware that a single catalyst formulation cannot provide optimum results in all resin systems. The interaction between the catalyst and the inhibitor/accelerator systems used in our products is complex and varies resin to resin. Consequently the gel and cure characteristics provided by alternate catalysts can vary greatly from these specified. It is therefore, absolutely essential that the user evaluate each alternate catalyst in each product before full-scale manufacture is started.

TYPICAL NON-REINFORCED CAST PROPERTIES

Fully post-cured

Properties	Unit	Value	Test Method
Tensile strength	MPa	50	ISO 527-2: 2012
Tensile modulus	MPa	4600	ISO 527-2: 2012
Tensile elongation	%	1.6	ISO 527-2: 2012
Flexural strength	MPa	90	ISO 178 – 2010
Flexural modulus	MPa	4000	ISO 178 – 2010
Impact strength P 4 J	mJ/mm ²	5.0 – 6.0	ISO 179 – 2001
Volume shrinkage	%	5.5 – 6.5	ISO 3521 – 1997
Heat distortion temperature	°C	62	ISO 75 - 1993

Satisfactory laminates for many applications can be made from POLYNT resins by curing at a workshop temperature of 18-20°C. However, when optimum properties and long term performance are required, e.g. chemical resistance, the laminate should be post-cured. After demould, the laminate should be allowed to mature for 24 hours at the workshop temperature (18-20°C). A post-cure cycle should be used, this will vary from product to product depending upon the HDT of the resin. Suggested cycles can be found in our Technical Bulletin Number 1. A post-cure cycle is most effective when carried out immediately after the initial 24 hours maturing period.

STORAGE

Store in the shade, out of direct sunlight. Keep storage temperature below 25° C. Unseal container just before use. Shelf life will be reduced reaching higher temperature.

SAFETY

READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET BEFORE WORKING WITH THIS PRODUCT

The information contained in this document (which is to be intended only for explanatory purposes) is correct and accurate and is based on our technical and scientific knowledge and on literature at the date of publication. Such information relates only to use of the products in the pure state and for the purposes stated herein. Nothing in the information contained in this document shall be deemed to be a warranty or a representation (explicit or implicit) by the supplier, and/or taken or construed as infringing of any existing patents. The supplier shall not be under any liability or responsibility for any of the information provided under this document or for any errors, omissions or misstatements, even with regard to results to be obtained through the use of the aforesaid information.

POLYNT 1387 TAEP

2