

CRYSTIC R 115 PA

General purpose unsaturated polyester resin

Introduction

CRYSTIC R 115 PA is a thixotropic, pre-accelerated, orthophtalic unsaturated polyester resin.

Application

CRYSTIC R 115 PA can be used by hand lay up or by spray application for the production of most glass reinforced laminates.

Features and Benefits

Low viscosity.....	Rapid wetting of the reinforcements
Rapid hardening.....	Fast mould turn-round
General purpose.....	Only one resin in the workshop for most applications

Formulation

The following cold curing formulation is recommended:

CRYSTIC R 115 PA	:	100 parts
Catalyseur M	:	1 to 2 parts

Catalyst M is a Méthyl Ethyl Kétone Peroxyde at 50% such as the Butanox M 50 from AKZO.

Gel time

The ambient temperature, the quantity and the type of catalyst will control the gel time of the resin. Curing should not be carried out at temperature below 15°C.

Parts of catalyst M for 100 parts of resin	1	2
Geltime at 15°C in min.	74	28
Geltime at 20°C in min.	48	19
Geltime at 25°C in min.	30	10

Additives

Since certain pigments, fillers or extra styrene may affect the properties of **CRYSTIC R 115 PA** their effect should be evaluated before addition to the formulation.

Post-Curing

For most applications satisfactory result will be obtained by curing at room temperature (20°C). Some improvement in properties may be obtained by post-curing 16 hours at 40°C after release from the mould.

Typical properties

On liquid resin		Value
Aspect		Thixo - pink
Viscosity at 25°C Rhéomat 37,35 sec ⁻¹	dPas	4 – 5
Specific gravity at 25°C		1,10
Stability under recommended storage conditions	Month (from date of manufacture)	6
Geltime at 25°C, 2 % Catalyst M	Minutes	9 - 11
Volatil content	%	40 – 43
Acide index	Mg KOH/g	16 - 22

On cured resin *	Unité	Valeur
Barcol hardness (Model GYZJ 934-1)		50
Water ingress (24h à 23°C)	mg	14
HDT (1,8 MPa)	°C	65
Specific gravity 20°C		1,1
Elongation at break	%	2
Tensile strenght	MPa	62
Tensile modulus	MPa	3800

Test according to BS 2782 :1980

1MPa = 1MN/m² = 1N/mm² = 10,2 kgf/cm²

* cured 24 h at 20°C then 3 h à 80°C except for the HDT where the schedule was 24 h at 20°C then 5 h at 80°C then 3h at 120°C.

Packaging

CRYSTIC® R115 PA is supplied in 225 kg or 1100 kg containers. Bulk supplies can be delivered by road tanker.

Storage

CRYSTIC® R115 PA 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.

Health and safety

See the appropriate MSDS

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