Technical data sheet

POLYCOR ISO BR

Generic Family: 4100

First Emission: 18/10/2024 **Version: 1, 18/10/2024**

Product type

Preaccelerated Unsaturated polyester Gel Coat in styrene, Isophthalic

Appearance

Various Colours

Description

POLYCOR ISO BR are high quality coatings developed for the fiberglass composites industry. These gel coats provide quality finishes, which deliver good chemical/water resistance, gloss retention, weatherability and resiliency
Please contact your Polynt representative for full details
This product range is formulated to offer good all round properties with excellent application characteristics
This range contains only styrene monomer as reactive diluent.
This range of gelcoats are available in a wide range of colours

Key Features & Benefits

Good resistance to Gloss loss
Good resistance to Surface Yellowing
Good UV resistance
Good water resistance
Medium reactivity
Pigmented
Preaccelerated
Resilient Mechanical Properties
Thixotropic

Application

Brush grade materials are designed for hand application to the mould and carefully levelled with a brush for even thickness
Brush grade materials are not designed for spraying or diluted with solvent to spray
Do mix the Gel coat prior to use, preferably using a mechanical mixer with sufficient power for the appropriate container at low rpm. Mixing for 10 minutes every day is usually sufficient. Do NOT use air bubbling directly to mix.
Do not overmix the gel coat, it may break down viscosity, increasing tendency to sag and also result in styrene loss which could contribute to porosity.
Ensure Gel coat is used at minimum liquid temperature of 18°C including the mould used and workshop environment conditions
Film thickness above 600 micron may pre-release, trap porosity, crack and are more subject to weathering discolouration.
Film thickness below 300 micron may not cure properly, may be hard to patch, have more print through, and be more susceptible to water blisters
Follow best practice application techniques
Ideal thickness is 500 micron with a range of 400-600 microns wet film
Use only the recommended MEKP Peroxide dosage between 1.2 to 3.0% w/w

Shelf life and storage

Please ensure you rotate stock and use within shelf life
Please note the Shelf life for this product relates to unopened containers; Only open container prior to use
Read carefully the Safety Data Sheet before use
Store in the shade, out of direct sunlight. Keep storage temperature below 25°C. Shelf-life will be reduced at higher temperature.

CHARACTERISTICS (1)

Properties	*Test Method*	*Unit*	*Typical values*
Storage stability at 23°C in the dark		months	4
Density - 25°C	MT-CG 001O	g/cm³	1.05-1.28
Solid content	MT-CG 001C	%	65-72
Rheology			
Brookfield viscosity at 25°C, sp 5 rpm 5	MT-CG 025V	mPa.s	22500 - 33000
Brookfield viscosity: 5 rpm / 50 rpm at 25°C	MT-CG 025V		4.0-4.7
Reactivity			
Gel Time at 25°C + 1,8% MEKP50	MT-CG 004R	minutes	8-13
Curing time at 25°C + 1,8% MEKP50	MT-CG 004R	minutes	15-25
Peak exotherm at 25°C + 1,8% MEKP50	MT-CG 004R	°C	160-190
Film Properties			
Film Cure at 500-700 microns at 25°C	MT-CG 901R	min	45-80
Complete Hide	MT-CG 901Q	microns wet	Varies upon colour type

1) Thoroughly test the gelcoat in your applications before full-scale use. Geltimes may vary due to the reactive nature of these materials and due to different brands of curing additives. Always test on small scale before formulating large quantities.

PROPERTIES OF THE GELCOAT'S BASE RESIN IN CURED STATE (2)

Curing cycle	16h at 40°C		
HDT	ISO 75-2A (2013)	°C	**54**
Tensile strength	ISO 527 (2012)	MPa	**59**
Elongation at break	ISO 527 (2012)	%	**3.8**

2) Properties are typical values, based on material tested in our laboratories, but varies from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.