

Viapal UP 223 BS/65

Technical Data Sheet

Viapal UP 223 BS/65 - Casting Resin

CHARACTERISTICS

Polyester resin - VIAPAL UP 223 BS/65 is an unsaturated polyester resin of medium reactivity dissolved in styrene, cobalt pre-accelerated and light-stabilized. Moulding materials are crystal clear and comply with type 1110 according to DIN 16 946, Part 2.

HOW TO USE

The polyester resin **VIAPAL UP 223 BS/ 65** is suitable for the production of moulding materials in the casting process. It is preferably used for embedding, e.g. in promotional gifts, in the hobby sector, etc. In addition, the polyester resin **VIAPAL UP 223 BS/65** is used to produce crystal-clear rod material for buttons. Castings with a larger volume can be produced crack-free in the single or multi-layer casting process. When pouring, the material to be embedded must first be tested for styrene insensitivity. A change in the monomer content results in properties other than those specified in the leaflet.

DELIVERY FORM

65% in styrene.

CHARACTERISTICS

Regularly determined:

Content of non-volatile components (2g, 125°C, 1 hour)	DIN EN ISO 3251		(%)	63-67
Dynamic Viscosity at 23 °C Kegel-Platte-Scherrate : 500 s	DIN EN ISO 3219		(mPa.s)	600-800
Acid number	DIN 53 402		(mg KOH/g)	Max.30
g at 25°C with 1% MEKP (33%)	DIN 16 945	25-35°C 25°C-T max. T max.	(min) (min) (°C)	20-30 45-55 35-55

Not regularly determined:

Gelling time at 20°C With 1% MEKP (33%)	DIN 16 945		(min)	25-35
Density at 20°C	DIN 53 217		(g/ml)	Approx. 1, 12
Flash point	DIN 53 213		(°C)	Approx. 34
Shelf life at max. 25°C and in the absence of light			(months)	Mind.6

PROPERTIES OF MOLDING MATERIALS MADE OF VIAPAL UP 223 BS /65

Data of Unreinforced Polymerized Resin

Flexural strength	DIN EN 63	(N/mm ²)	90
Modulus of elasticity from the bending test	DIN 53 457	(N/mm ²)	3500
Tensile strength	DIN EN 61	(N/mm ²)	55
Elongation at break	DIN EN 61	(%)	2,5
Barcol hardness	DIN EN 59	--	35
Impact resistance	DIN 53 453	(kJ/m ²)	8
Ball pressure hardness Hc 60	DIN 53 456	(N/mm ²)	180
Heat deflection according to Martens	DIN 53 458	(°C)	55
Heat deflection according to ISO 75/A	DIN 53 461	(°C)	70
Glass transition temperature	DIN 53 455	(°C)	80
Thermal conductivity	DIN 52 612	(W/mK)	0,14
Linear heat expansion coefficient 0-70°C	VDE 0304	(10 K)	115
Specific heat 0-70°C	BY 0335	(kJ/kg K)	1,4
Volume shrinkage	DIN 16 946	(%)	7
Density at 20°C	DIN 53 479	(g/cm ³)	1,22
Water absorption after 7 days at 20°C	--	(%)	0,4
Dielectric coefficient ϵ at 10° HZ	DIN 53 483	--	3.0
Dielectric dissipation factor $\tan \delta$ at 10° HZ	DIN 53 483	--	0.02
Surface Resistance	DIN 53 482	(H)	1013
Spec. Contact resistance	DIN 53 482	(Ω cm)	1015
Creepage formation	DIN (EC 112)	(V)	PTI 600

Curing System: Methyl Ethyl Ketone

Post-curing: 15 hours at ISO 75 temperature

Climate: 23°C/50% relative humidity according to DIN 50 014, if not specially marked

PROCESSING

Mixing ratio	100 parts resin / 0.8-2 parts hardener (volume or weight)	at 20°C
Processing Time	25-35 min.	
Demouldable	24h	
Final	48h	
Overlaminatable	7 days	
Processing Temperature	18-25°C	

SPECIAL NOTES

VIAPAL UP 223 BS/65 is cured with 0.8 to 2.0% ketone peroxide, depending on the thickness of the molded part. (the thinner the application, the more hardener required, at certain layer thicknesses possibly test it beforehand or contact our customer service)

Geeignete Peroxide:

Andonox KP-9
Butanox M-50
Luperox GZS
MEKP-LA-3

Other ketone peroxides can be used if they contain the crystal-clear curing polyester resin **VIAPAL UP 223 BS/65**.

Post-curing

In order to achieve optimal curing of molding materials, thermal post-treatment is required depending on temperature, time and wall thickness. For molding materials made of polyester resin **VIAPAL UP 223 BS/65** at room temperature, a post-curing of at least 2 hours at 60°C is recommended as a guideline if the part is about 10mm thick.

Viapal UP 223 BS/65

Storage

Only close opened containers tightly with the original lid. Store in a cool, dry place. With optimal Storage at least 6 months shelf life.

Work Equipment Cleaning

Hardened resins can only be cleaned mechanically, such as by grinding! Acetone can be used to remove non-hardened resin residues from the tool, which must then air out sufficiently to prevent the cleaner from entering new containers!

Precautions

When processing unsaturated polyester resins, the information in the safety data sheet must be observed!

More information

If you have any further questions, for example about the processing or the product, please do not hesitate to contact us by phone .

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