

Product Data Sheet

Palapreg H 1080-01

Chemical/physical nature

Palapreg H 1080-01 is a solution of a thermoplastic based of PVAc in styrene.

Major applications

It is used as a low profile additive in sheet or dough moulding compounds or pultrusion systems. Depending on the choice of the UP-resin and the ratio of UP-resin to Palapreg H 1080-01, low shrinkage up to slight expansion can be achieved. The formulation can readily be thickened with magnesium oxide. Pigmentability is limited.

Product specifications upon delivery

Property	Range	Unit	TM
Viscosity, 23°C	3400 - 4800	mPa.s	2013
Solids content IR drying	38 - 41	%	2033
Appearance	clear - sl. hazy	-	2265
Water content	0.08 - 0.20	%	2350
Acid value, as such	1.5 - 5.5	mg KOH/g	2401

Remarks

Viscosity: 23°C, spindle Z3, speed 100 s⁻¹, program

Properties of the liquid resin (typical values)

Property	Value	Unit	TM
Density, 25°C	1000	kg/m ³	2160
Flash point	33	°C	2800
Stability, no init., dark, 20°C	3	Month	-

Properties of SMC-mouldings (typical values)

Property	Value	Unit	TM
Glass content	28	%	-
Flexural strength	210	MPa	ISO 178
Flexural modulus	14.5	GPa	ISO 178
Outer fibre strain	2.6	%	ISO 178
Tensile strength	85	MPa	ISO 527-2
Mod. of elasticity in tension	11.0	GPa	ISO 527-2
Elongation at break	1.3	%	ISO 527-2
Impact res. - unnotched sp.	110	kJ/m ²	ISO 179
Moulding shrinkage	-0.04 = expansion	%	DIN 53464

Typical starting formulation for SMC-paste

Component	Weight
Palapreg P 18-21	60
Palapreg H 1080-01	40
TBPB	1.5
Styrene	5
Byk W 996, Byk Chemie	2
Calcium carbonate	190
Zinc stearate	4
MgO-paste (35% MgO)	2

Processing

Palapreg H 1080-01 is usually processed together with an ortho-type of resin (e.g. Palapreg P 17-02) or a pure maleic resin (e.g. Palapreg P18-03, Palapreg P 18-21 or Palapreg P 0423-02) into LP-SMC and BMC. As a rule, the ratio of UP resin to Palapreg H 1080-01 is 60:40 but it can be varied if necessary. Depending on the size of the mouldings it is recommended to add 300 to 600 ppm p-benzoquinone to the system (calculated on UP-resin plus thermoplastic solution).

Storage guidelines

The product should be stored indoors in the original, unopened and undamaged packaging, in a dry place at temperatures between 5°C and 30°C and the properties might change during storage. Shelf life is reduced at higher temperatures and the properties of the resin might change during storage. The shelf life of styrene containing unsaturated polyesters will be significantly reduced when exposed to light. Store in dark and in 100% light tight containers only.

Material Safety

A material safety data sheet for the product is available on request.

Test methods

Test methods (TM) referred to in the table(s) are available on request.

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