Product Information

VESTORAN® 1900 S27024

UNFILLED, AMORPHOUS PPE RESIN

As a material of amorphous structure **VESTORAN® 1900 S27024** shows very small mold shrinkage. Therefore molded parts have a very low tendency to warp. The impact modified compound is of low density and easy to process.

Further properties are excellent impact strength, heat deflection under load and suitability for being coated with lacquers.

Moldings of VESTORAN® 1900 S27024 are dimensionally stable and hydrolysis resistant even in hot water, but are more sensitive to organic solvents than semi-crystalline plastics.

VESTORAN® 1900 S27024 is resistant to aqueous alkalines and acides, certain alcohols, and glycol solutions and particularly suitable for the adhesion promoter-free manufacturing of plastic/ rubber composites by the Evonik Industries AG -patented K&K process.

VESTORAN® 1900 S27024 is supplied as cylindrical granules in PE-bags.

Key Features

Industrial Sector
Automotive and Mobility

Processing
Injection molding

Delivery form
Pellets, Granules

Resistance to
Heat (thermal stability), Hydrolysis / hot water, Oil / fuels

Conformity
Automotive

Additives
Unfilled

Mechanical properties ISO	dry	Unit	Test Standard
Tensile modulus	**290000**	psi	ISO 527
Tensile strength	**8700**	psi	ISO 527
Yield stress	**8700**	psi	ISO 527
Yield strain	**5**	%	ISO 527

Stress at break	**7690**	psi	ISO 527
Nominal strain at break, tB	**>50**	%	ISO 527
Charpy impact strength, +23°C	**119**	ftlb/in^2	ISO 179/1eU
Type of failure	**P**	-	-
Charpy notched impact strength, +23°C	**11.9**	ftlb/in^2	ISO 179/1eA
Type of failure	**C**	-	-
Flexural modulus, 23°C	**348000**	psi	ISO 178

Thermal properties	**dry**	**Unit**	**Test Standard**
Temp. of deflection under load A, 1.80 MPa	**338**	°F	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	**374**	°F	ISO 75-1/-2
Vicat softening temperature A, 10 N, 50 K/h	**374**	°F	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	**365**	°F	ISO 306

Physical properties	**dry**	**Unit**	**Test Standard**
Density	**1.04**	g/cm^3	ISO 1183
Density	**1.04**	g/cm^3	ASTM D 792

Burning Behav.	**dry**	**Unit**	**Test Standard**
Burning behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**0.0630**	in	-
Burning behav. at thickness h	**HB**	class	IEC 60695-11-10
Thickness tested	**0.0315**	in	-

Electrical properties	**dry**	**Unit**	**Test Standard**
Volume resistivity, V	**1E13**	Ohm*m	IEC 62631-3-1
Relative permittivity, 100Hz	**2.6**	-	IEC 62631-2-1
Relative permittivity, 1MHz	**2.9**	-	IEC 62631-2-1
Dissipation factor, 100Hz	**80**	E-4	IEC 62631-2-1

Dissipation factor, 1MHz	**160**	E-4	IEC 62631-2-1
Dielectric strength, AC, S20/P50	**1020**	V/mil	Sim. to IEC 60243-1
CTI, test solution A, 50 drops value	**225**	-	IEC 60112
Assessment of the insulation group	**III a**	-	DIN EN 60664-1

Rheological properties	**dry**	**Unit**	**Test Standard**
Melt volume-flow rate, MVR	**40**	cm^3/10min	ISO 1133
Temperature	**300**	°C	-
Load	**21.6**	kg	-
Molding shrinkage, parallel	**0.9**	%	ISO 294-4, 2577
Molding shrinkage, normal	**0.8**	%	ISO 294-4, 2577
Mold temperature	**176**	°F	-

Test specimen production	**dry**	**Unit**	**Test Standard**
Injection Molding, melt temperature	**608**	°F	ISO 294
Injection Molding, mold temperature	**176**	°F	ISO 294
Injection Molding, injection velocity	**7.87**	in/s	ISO 294

Characteristics

Processing
K&K process

Special Characteristics
Amorphous, High heat resistant, Low warpage / Low shrinkage

Color
Black

Additives
Heat stabilizer

Chemical Resistance
Acid resistance, Alkali resistance