

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 acids, 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

Resistance to

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

Processing

Injection molding

Conformity

Automotive

Delivery form

Pellets, Granules

Additives

Unfilled

Mechanical properties ISO

Tensile modulus

dry

Unit

Test Standard

2000

MPa

ISO 527

Tensile strength

60

MPa

ISO 527

Yield stress

60

MPa

ISO 527

Yield strain

5

%

ISO 527

Stress at break	53	MPa	ISO 527
Nominal strain at break, tB	>50	%	ISO 527
Charpy impact strength, +23°C	250	kJ/m ²	ISO 179/1eU
Type of failure	P	-	-
Charpy notched impact strength, +23°C	25	kJ/m ²	ISO 179/1eA
Type of failure	C	-	-
Flexural modulus, 23°C	2400	MPa	ISO 178

Thermal properties	dry	Unit	Test Standard
Temp. of deflection under load A, 1.80 MPa	170	°C	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	190	°C	ISO 75-1/-2
Vicat softening temperature A, 10 N, 50 K/h	190	°C	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	185	°C	ISO 306

Physical properties	dry	Unit	Test Standard
Density	1040	kg/m ³	ISO 1183
Density	1040	kg/m 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	1.6	mm	-
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.8	mm	-

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	40	kV/mm	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	80	°C	-

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	320	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	200	mm/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