

Very high environmental stress cracking resistant (VH ESCR) HIPS.
ICE S 900 exhibits high toughness and excellent chemical resistance to oils, fats and chemical agents and in particular to cyclopentane.
Suitable for extrusion / thermoforming and injection moulding.
Designation: Thermoplastics ISO 2897-PS-I,G,093-03-07-12

Applications

Designed for inner liners and frames for refrigerators where cyclopentane is used as blowing agent for insulating polyurethane foams.
ICE S 900 significantly improves wall thickness distribution in thermoforming, thus the original extruded sheet thickness can be optimised.

Typical processing data

Extrusion:

- melt temperature 210-240°C

Injection moulding:

- predrying normally not required
- melt temperature 210-260°C

General information

This product in the natural version complies by composition with the requirements of the main Regulations for plastic materials intended to come into contact with food, including Regulation (EU) No 10/2011 and following amendments.
ICE S 900 is supplied in round pellets.



Property	Test Conditions	Test method	Units	Values
General				
Water absorption	24h - 23°C	ISO 62	%	<0,1
Density	-	ISO 1183	g/cm ³	1,04
Bulk density	-	ISO 60	g/cm ³	0,65
Rheological				
Melt flow rate	200°C - 5kg	ISO 1133	g/10'	2,5
Mechanical				
Tensile strain at break	50 mm/min	ISO 527	%	70
Tensile stress at break	50 mm/min	ISO 527	MPa	25
Tensile stress at yeld	50 mm/min	ISO 527	MPa	17,5
Tensile modulus	1 mm/min	ISO 527	MPa	1450
Izod impact strength, notched	+23°C - 4mm	ISO 180/1A	kJ/m ²	11
Thermal				
Coefficient of linear thermal expansion	-	ASTM D 696	10 ⁻⁵ /°C	9
Thermal conductivity	-	ISO 8302	W/(K.m)	0,17
Moulding shrinkage	-	ISO 294/4	%	0,4 - 0,7
Vicat softening temperature	50 N - 50°C/h	ISO 306/B	°C	92
Flammability				
Flame behaviour	1,5 mm	UL 94	cl.	HB
Glow wire test (GWT)	1,6 mm	IEC 60695-2-1	°C	650
Electrical				
Dielectric constant (relative permittivity)	50 Hz	IEC 60250	-	2,5
Dissipation factor	50 Hz	IEC 60250	-	0,0003
Comparative tracking index (CTI)	Sol. A	IEC 60112	-	500
Surface resistivity	-	IEC 60093	10 ¹⁵ ohm	>1,5
Volume resistivity	-	IEC 60093	10 ¹⁵ ohm.cm	>7
Dielectric strength	-	IEC 60243	kV/mm	65

