

Cycolac* Resin XS850

Europe-Africa-Middle East: LIMITED USE

Cycolac XS850 is an Obsolete flame retardant V0 extrusion material. It has been succeeded by Cycolac S850.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Taber Abrasion, CS-17, 1 kg	165	mg/1000cy	SABIC Method
Tensile Stress, yield, 5 mm/min	45	MPa	ISO 527
Tensile Stress, break, 5 mm/min	35	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	45	MPa	ISO 527
Tensile Stress, break, 50 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	5	%	ISO 527
Tensile Strain, yield, 50 mm/min	3	%	ISO 527
Tensile Strain, break, 50 mm/min	10	%	ISO 527
Tensile Modulus, 1 mm/min	2500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	70	MPa	ISO 178
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
Hardness, H358/30	91	MPa	ISO 2039-1
Hardness, Rockwell R	108	-	ISO 2039-2
IMPACT	Value	Unit	Standard
Izod Impact, notched 80*10*4 +23°C	14	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	14	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m ²	ISO 179/1eA
THERMAL	Value	Unit	Standard
Thermal Conductivity	0.2	W/m-°C	ISO 8302
CTE, 23°C to 60°C, flow	8.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	88	°C	ISO 306
Vicat Softening Temp, Rate B/120	90	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	85	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	76	°C	ISO 75/Ae
PHYSICAL	Value	Unit	Standard
Mold Shrinkage on Tensile Bar, flow (2)	0.5 - 0.7	%	SABIC Method
Density	1.18	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	1	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Flow Rate, 220°C/10.0 kg	4	g/10 min	ISO 1133
ELECTRICAL	Value	Unit	Standard
Volume Resistivity	>1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 0.8 mm	35	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	26	kV/mm	IEC 60243-1

Dielectric Strength, in oil, 3.2 mm	18	kV/mm	IEC 60243-1
Relative Permittivity, 50/60 Hz	2.7	-	IEC 60250
Relative Permittivity, 1 MHz	2.6	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.003	-	IEC 60250
Dissipation Factor, 1 MHz	0.008	-	IEC 60250
Comparative Tracking Index	600	V	IEC 60112
FLAME CHARACTERISTICS			
	Value	Unit	Standard
UL Compliant, 94V-0 Flame Class Rating (3)(4)	1.6	mm	UL 94 by GE
Glow Wire Flammability Index 650°C, passes at	3.2	mm	IEC 60695-2-12
Oxygen Index (LOI)	27	%	ISO 4589

Source GMD, last updated:10/01/2002

Processing

Parameter	Value	Unit
Profile Extrusion		
Drying Temperature	80 - 90	°C
Drying Time	2 - 4	hrs
Melt Temperature	170 - 200	°C
Barrel - Zone 1 Temperature	160 - 185	°C
Barrel - Zone 2 Temperature	170 - 195	°C
Barrel - Zone 3 Temperature	180 - 210	°C
Barrel - Zone 4 Temperature	180 - 210	°C
Adapter Temperature	180 - 210	°C
Die Temperature	180 - 210	°C
Calibrator Temperature	60 - 80	°C

Source GMD, last updated:10/01/2002

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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