ACRYLITE® Resist ZK-P

Röhm GmbH - Polymethyl Methacrylate Acrylic

Tuesday, January 21, 2020

General Information

Product Description

ACRYLITE® Resist ZK-P polymer is an amorphous, impact-modified thermoplastic molding and extrusion compound based on polymethyl methacrylate (PMMA).

Typical properties of ACRYLITE® Resist acrylic polymers are:

- high weather resistance
- high light transmission
- improved resistance to stress cracking
- good melt flow rate
- easy to color

The special properties of ACRYLITE® Resist ZK-P polymer are:

- medium impact/break resistance and strength
- medium melt flow rate
- high heat resistance
- AMECA listed
- FDA food contact use
- BPA free

Application:
Used for injection molded parts.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Impact Modifier		
Features	• Amorphous • BPA Free • Food Contact Acceptable • Good Colorability	• Good Weather Resistance • High Clarity • High Heat Resistance • High Light Transmission	• Impact Modified • Medium Flow • Medium Impact Resistance • Medium Strength
Uses	• Appliance Components • Automotive Applications • Household Goods	• Housings • Lenses • Lighting Applications	• Medical Devices
Agency Ratings	• EC 1907/2006 (REACH)	• FDA Food Contact, Unspecified Rating	
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.18	g/cm³	ASTM D792
Apparent (Bulk) Density	0.71	g/cm³	ASTM D1895
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	4.5	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.30 to 0.60	%	ASTM D955
Water Absorption (Equilibrium)	< 0.30	%	ASTM D570

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Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2760	MPa	ASTM D638
Tensile Strength	72.4	MPa	ASTM D638
Tensile Elongation (Yield)	5.0	%	ASTM D638
Tensile Elongation (Break)	20	%	ASTM D638
Flexural Modulus	2760	MPa	ASTM D790
Flexural Strength	108	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
0°C, 6.35 mm	19	J/m	
23°C, 6.35 mm	32	J/m	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	80		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Annealed, 6.35 mm	92.2	°C	
Vicat Softening Temperature	104	°C	ASTM D1525
CLTE - Flow (0 to 100°C)	7.2E-5	cm/cm/°C	ASTM D696
Optical	**Nominal Value**	**Unit**	**Test Method**
Transmittance (3200 µm)	92.0	%	ASTM D1003
Haze (3200 µm)	1.00	%	ASTM D1003
Yellowness Index (3.20 mm)	0.30	YI	ASTM D1925

Notes

[1] Typical properties: these are not to be construed as specifications.