

**ACRYLITE® Heatresist hw55**

PMMA

Evonik CYRO LLC

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	1.2	cm <sup>3</sup> /10min	ISO 1133
Temperature	230	°C	-
Load	3.8	kg	-
Molding shrinkage, parallel	0.4	%	ISO 294-4, 2577
<b>ASTM Data</b>			
Melt Flow Index, MFI	1.3	g/10min	ASTM D 1238
Temperature	230	°C	-
Load	3.8	kg	-
Mold Shrinkage, MD	0.0095	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	3600	MPa	ISO 527
Stress at break	80	MPa	ISO 527
Strain at break	3.5	%	ISO 527
Charpy impact strength, +23°C	20	kJ/m <sup>2</sup>	ISO 179/1eU
<b>ASTM Data</b>			
Tensile Modulus	3800	MPa	ASTM D 638
Tensile Strength	86	MPa	ASTM D 638
Elongation at Yield	3	%	ASTM D 638
Elongation at Break	3	%	ASTM D 638
Flexural Modulus	3500	MPa	ASTM D 790
Flexural Strength	137	MPa	ASTM D 790
Rockwell Hardness	M 100	-	ASTM D 785
Izod Impact notched, 1/4 in	13	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	106	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	109	°C	ISO 75-1/-2
Vicat softening temperature, B	120	°C	ISO 306
Coeff. of linear therm. expansion, parallel	64	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.6	mm	-
<b>ASTM Data</b>			
Coefficient of Thermal Expansion, MD	101	E-6/K	ASTM D 696
Vicat Temperature	119	°C	ASTM D 1525

Optical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Luminous transmittance	91	%	ISO 13468-1, -2
<b>ASTM Data</b>			
Haze	1	%	ASTM D 1003
Light Transmittance	91	%	ASTM D 1003

Other properties	Value	Unit	Test Standard
Water absorption	2.2	%	Sim. to ISO 62
Humidity absorption	0.6	%	Sim. to ISO 62
Density	1190	kg/m <sup>3</sup>	ISO 1183
Water Absorption, Equilibrium	0.3	%	ASTM D 570
Density	1190	kg/m <sup>3</sup>	ASTM D 792

**Characteristics**

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### Processing

Injection Molding, Other Extrusion

### Delivery form

Pellets

### Special Characteristics

U.V. stabilized or stable to weather, Heat stabilized or stable to heat

### Features

Light Guiding, Melt Strength

### Chemical Resistance

General Chemical Resistance

### Applications

Automotive, Medical

### Regional Availability

North America