

## ACRYLITE<sup>®</sup> Heatresist hw55 polymer

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### Product Profile:

ACRYLITE<sup>®</sup> Heatresist hw55 acrylic polymer is a copolymer based on methyl methacrylate (MMA) with comonomer constituents for injection molding applications.

Typical properties of ACRYLITE<sup>®</sup> Heatresist acrylic polymers are:

- excellent weather resistance
- high light transmission
- high mechanical strength
- high surface hardness and mar resistance
- good melt flow rate
- versatile colorability due to crystal clarity

The special properties of ACRYLITE<sup>®</sup> Heatresist hw55 polymer are:

- high heat resistance
- high melt strength
- improved resistance to isopropyl alcohol
- AMECA listed

### Application:

Used for injection molding of technical parts for applications subjected to high thermal stress.

### Examples:

Automotive rear light lenses, lighted keys, light covers, reflex lenses and fog light lenses.

### Processing:

ACRYLITE<sup>®</sup> Heatresist hw55 polymer can be processed in injection molding machines and extrusion lines with 3– zone general purpose screws. ACRYLITE<sup>®</sup> Heatresist hw55 polymer exhibits heat sensitivity during processing therefore follow our recommended processing conditions.

### Packaging:

Available in 1500 lb. gaylord boxes; other packaging available on request.

## Properties:

	Parameter	Unit	ASTM-Standard	ACRYLITE® Heatresist hw55 polymer
<b>Mechanical Properties</b>				Typical Value
Tensile Strength		psi [MPa]	D 638	12500 [86]
Tensile Modulus		x10 <sup>6</sup> psi [GPa]	D 638	0.55 [3.8]
Tensile Elongation @ Yield		%	D 638	2 – 4
Tensile Elongation @ Break		%	D 638	2 – 4
Flexural Strength		psi [MPa]	D 790	19800 [136.5]
Flexural Modulus		x10 <sup>6</sup> psi [GPa]	D 790	0.50 [3.5]
Notched Izod	¼" bar @23°C	ft-lb/in [J/m]	D 256	0.25 [13]
Rockwell Hardness		M Scale	D 785	100
<b>Thermal Properties</b>				
Vicat Softening Point	264 psi	°F [°C]	D 1525	246 [119]
Deflection Temperature, Annealed	1.8MPa, 0.250"	°F [°C]	D 648	223 [106]
Coeff. of Linear Therm. Expansion	32 – 312°F	in/ in/°F	D 696	0.000056
<b>Rheological Properties</b>				
Melt Flow Rate	230°C & 3.8 kg	g/10min	D 1238	1.3
<b>Optical Properties</b>				
	d = 3.2 mm			
Light Transmission		%	D 1003	91
Haze		%	D 1003	<1
<b>Other Properties</b>				
Specific Gravity			D 792	1.19
Water Absorption		% Max	D 570	0.3
Mold Shrinkage		in/in, mm/mm	D 955	0.009–0.010

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification.

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