

# NAS® XC

Styrene Methyl Methacrylate (SMMA)

## TECHNICAL DATASHEET

### DESCRIPTION

NAS® XC is a styrene methyl methacrylate copolymer that can be used in a variety of applications demanding a low haze and extreme clarity.

### FEATURES

- High surface quality
- Transparency
- Low density
- Water clear appearance

### APPLICATIONS

- Automotive rear light housings

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	2
<b>Mechanical Properties</b>			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	0.4
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	9500
Tensile Modulus	ASTM D 638	psi x 10 <sup>3</sup>	490
Elongation, Failure	ASTM D 638	%	4
Flexural Strength, 23 °C	ASTM D 790		15800
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 <sup>3</sup>	480
Hardness, Rockwell	ASTM D 785	M scale	71
<b>Thermal Properties</b>			
Vicat Softening Temperature, B/1 ( 120 °C/h, 10N)	ASTM D 1525	°F	227
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	-	°F	210
Glass transition temperature	-	-	218
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°F	218
<b>Optical Properties</b>			
Refractive Index, Sodium D Line	ASTM D 542	-	1.54
Light Transmission at 550 nm	ASTM D 1003	%	93

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Haze	ASTM D 1003	%	0.3
<b>Other Properties</b>			
Water Absorption, Saturated at 23 °C	ASTM D 570	%	0.17
Density (ASTM )	ASTM D 792	g/cm <sup>3</sup>	1.11
<b>Processing</b>			
Linear Mold Shrinkage	ASTM D 955	in/in	0.002 - 0.006
Melt Temperature Range	-	°F	410 - 470
Mold Temperature Range	-	°F	90 - 140
Rear Temperature Range	-	°F	360 - 420
Middle Temperature Range	-	°F	390 - 450
Front Temperature Range	-	°F	410 - 470
Drying Temperature	-	°F	180
Drying Time	-	h	2
Max Service Temperature	-	°F	500