

PELLETHANE^{*} 2102-90A

Thermoplastic Polyurethane Elastomer

- Low compression set

Properties	Test Method	English		S.I.	
		Values [†]	Units	Values [†]	Units
Physical					
Specific Gravity	ASTM D 792	1.2		1.2	
Mold Shrinkage (1/16" [1.6 mm] thick plaques)					
MD		0.5-0.6	%	0.5-0.6	%
TD		0.6-0.7	%	0.6-0.7	%
Mechanical					
Durometer Hardness, Shore A (+/-4)	ASTM D 2240	94A		94A	
Tensile Modulus at	ASTM D 412				
50% elongation		1220	psi	8.4	MPa
100% elongation		1600	psi	11.0	MPa
300% elongation		4000	psi	27.6	MPa
Ultimate Tensile Strength	ASTM D 412	6500	psi	44.8	MPa
Ultimate Elongation	ASTM D 412	440	%	440	%
Elongation Set After Break	ASTM D 412	30	%	30	%
Tear Strength, Die "C"	ASTM D 624	830	PLI	145	KN/m
Compression Set	ASTM D 395				
22 hours at 25°C (77°F)	Method B	25	%	25	%
22 hours at 70°C (158°F)		29	%	29	%
Taber Abrasion Resistance	ASTM D 1044				
1000 g, 1,000 cycles; H-22 wheel (coarser)				10	mg
Flexural Modulus	ASTM D 790	12,000	psi	82.7	MPa
Thermal					
Vicat Softening Temperature	ASTM D 1525	243	°F	117	°C
Coefficient of Linear Thermal Expansion	ASTM D 696	83.3	10 ⁻⁶ in/in/°F	150	10 ⁻⁶ mm/mm/°C
Glass Transition Temperature	DSC	-15	°F	-26	°C
Rheological Properties					
Melt Index, 224°C, 1200 g	ASTM D 1238	–	–	11	g/10 min
Processing Information					
Recommended Drying Temperature		190-220	°F	88-104	°C
Recommended Melt Temperature (Molding)		400-430	°F	204-221	°C
Recommended Melt Temperature (Extrusion)		–	°F	–	°C
Recommended Mold Temperature		60-140	°F	16-60	°C

[†]Typical values, not to be construed as specifications. Users should confirm results by their own tests.

