

Technical Data Sheet
Type: Estane® 2103-80PF D is a thermoplastic polyurethane elastomer.

Feature: Film and profile resin.

Properties	Test Method	English		S.I.	
		Values [†]	Units	Values [†]	Units
Physical⁽¹⁾					
Specific Gravity	ASTM D 792	1.1		1.1	
Mold Shrinkage (1/16" [1.6mm] thick plaques)					
MD		0.4-0.7	%	0.4-0.7	%
TD		-0.2-0.5	%	-0.2-0.5	%
Mechanical					
Durometer Hardness, Shore A (+/-4)	ASTM D 2240	84	A	84	A
Tensile Modulus					
-50% elongation	ASTM D 412	600	psi	4.1	MPa
-100% elongation		750	psi	5.2	MPa
-300% elongation		1150	psi	7.9	MPa
Ultimate Tensile Strength	ASTM D 412	3800	psi	26.2	Mpa
Ultimate Elongation	ASTM D 412	660	%	660	%
Elongation Set After Break	ASTM D 412	50	PLI	50	%
Tear Strength, Die C	ASTM D 624	450		78.8	KN/m
Compression Set					
-22 hrs @ 25°C	ASTM D 395 Method B	25	%	25	%
-22 hrs @ 70°C		80	%	80	%
Taber Abrasion Resistance, 1000g, 1,000 cycles; CS-17 wheel (finer)	ASTM D 1044			5	mg
Flexural Modulus	ASTM D 790	-	psi	-	MPa
Thermal					
Vicat Softening Point (120°C/hr, 9.8N)	ASTM D 1525	156	°F	68.9	°C
Coefficient of Linear Thermal Expansion	ASTM D 696	95.2	10 ⁻⁶ mm/mm/°F	171	10 ⁻⁶ mm/mm/°C
Glass Transition Temperature	DSC	-51	°F	-46	°C
Rheological Information					
Melt Index, 190°C, 8700g	ASTM D1238	-	-	39	°C
Processing Information					
Recommended Drying Temperature		180-200	°F	82-93	°C
Melt Temperature (Molding)		370-400	°F	188-204	°C
Melt Temperature (Extrusion)		360-390	°F	182-199	°C
Mold Temperature		60-140	°F	16-60	°C

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

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