





Material Performance
The Meldin® Advantage

Saint-Gobain’s Meldin® series sets the standard of excellence for polyimide and high-performance thermoplastic materials. With its superior wear properties,

high dimensional stability, and outstanding chemical resistance, Meldin® is the ideal material for CMP retaining ring applications.

Property	Test Method	Units	Meldin® 5301	Meldin® 5410	Meldin® 5420	Meldin® 7001
Color						
Mechanical						
Tensile Strength	ASTM D638	psi (MPa)	14,000 (97)	12,615 (87)	8,594 (59)	10,500 (72)
Tensile Modulus	ASTM D638	psi (GPa)	507,500 (3.5)	184,816 (1.3)	206,904 (1.4)	365,000 (2.5)
Elongation (Yield, 23 °C)	ASTM D638	%	5.0	12.75	-	8.0
Flexural Strength	ASTM D790	psi (MPa)	22,400 (154)	-	-	12,800 (88)
Flexural Modulus	ASTM D790	psi (GPa)	579,700 (4.0)	-	-	365,000 (2.5)
Compressive Strength	ASTM D695	psi (MPa)	17,000 (117)	-	-	3,800 (26)
Compressive Modulus	ASTM D695	psi (GPa)	500,000 (3.4)	-	-	400,000 (2.8)
General						
Rockwell Hardness	ASTM D785	-	47 (E scale)	24 (E scale)	47 (E scale)	50 (E scale)
Poisson’s Ratio	ASTM D638	-	.4	-	-	.4
Water Absorption, 24 hrs	ASTM D570	%	.054	.077	.011	.258
Specific Gravity	ASTM D792	-	1.30	1.30	1.34	1.34



Meldin® 5301



Meldin 5410



Meldin 5420



Meldin 7001