

Vespel® or Meldin® Polyimide Shapes ?

Two great materials, one place to call.



PROFESSIONAL PLASTICS, INC.

Professional Plastics is proud to announce the introduction of Meldin® 7001 polyimide, a new option for our polyimide customers. Meldin is initially available in two basic formulations: **Meldin® 7001** (comparable to Vespel SP-1) and **Meldin® 7021** (comparable to Vespel SP-21). The addition of Meldin 7000 series polyimides allows Professional Plastics to provide more options and even better service to our customers.

MELDIN® 7001, Unfilled Grade (brown)

A thermosetting polyimide, Meldin® 7001 is made from the unfilled base resin. This grade offers the maximum mechanical properties and high chemical resistance. The Meldin® 7001 grade is ideal for electrical and thermal insulating applications. More ductile than ceramics, and lighter weight than metals, Meldin® 7001 is a popular choice for structural parts in aerospace & other applications where metal replacement is desirable.

MELDIN® 7021, 15% by Weight Graphite Filler (black)

Our self-lubricating grade, Meldin® 7021, has 15% by weight graphite fillers, encapsulated by the base polyimide resin. With its low coefficient of friction and high heat resistance, Meldin® 7021 provides our customers the best all-around choice for high temperature bearings, seals, and other low-wear applications.



Meldin® 7000 Series Polyimide Shapes



Comparative Data Sheets for Polyimide Shapes

		<u>Vespel® SP-1</u> Unfilled	<u>Meldin® 7001</u> Unfilled	<u>Vespel® SP-21</u> 15% Graphite	<u>Meldin® 7021</u> 15% Graphite
Specific Gravity	ASTM D792	1.43	1.43	1.51	1.51
Water Absorption	24 hr. ASTM D570	0.24 %	0.23%	0.19 %	0.19%
Mechanical Properties@ 73° F					
Hardness, Rockwell E	ASTM D785	50	40-55	35	25-40
Tensile Strength, Ultimate	ASTM D638	12,500 psi	12,500 psi	9,500 psi	9,500 psi
Elongation at Break	ASTM D638	7.5 %	8.0 %	4.5 %	3.2%
Flexural Modulus	ASTM D790	450 ksi	460 ksi	550 ksi	530 ksi
Flexural Yield Strength	ASTM D790	16,000 psi	15,800 psi	16,000 psi	15,800 psi
Compressive Modulus	ASTM D695	350 ksi	380 ksi	420 ksi	
Electrical Properties					
Surface Resistance	ASTM D257	5e+015 ohm	10 15 – 10 16 ohm	4.7e+012 ohm	10 8 – 10 9 ohm
Dielectric Constant	at 1 MHz; ASTM D150	3.55	3.14	6.41	
Dielectric Strength	ASTM D149	559 kV/m	580kV/m	250 kV/mil	280kV/m

For initial test orders, application profiles or qualifying Meldin® 7000 for your application, call us today !!

Vespel® is a registered trademark of E.I. DuPont De Nemours - Meldin® is a registered trademark of Saint Gobain Performance Plastics

Contact us at (800) 966-7767 sales@proplas.com

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