

EMA28

Bar 100mm Length		Price Each				
Width x Height mm	Order Code	1+	5+	10+	20+	50+
10 x 10	715-6170					
15 x 15	715-6182					
20 x 20	715-6194					
25 x 25	715-6200					

Rod 100mm Length		Price Each				
Ø mm	Order Code	1+	5+	10+	20+	50+
10	715-6212					
15	715-6224					
20	715-6236					
25	715-6248					

Sheet Dimensions mm		Price Each				
Dimensions	Order Code	1+	5+	10+	20+	50+
50 x 50 x 5	715-6250					
50 x 50 x 10	715-6261					
100 x 100 x 5	715-6273					
100 x 100 x 10	715-6285					

All dimensions are approximate

Shapal – M Soft



- Excellent machinability combined with high mechanical strength
- Excellent sealing ability to vacuum
- High thermal conductivity with a low thermal expansion
- High ability in heat resistance
- Excellent electrical insulation
- Low dielectric loss
- Ultra high purity

SHAPAL-M soft is a machinable ceramic with high mechanical strength and thermal conductivity. It is made on the basis of the world's first translucent aluminium nitride ceramic.

SHAPEL-M soft has a broad range of uses as a structural material as well as many other applications including vacuum parts, electronic components where electrical insulation and heat dissipation is required, or low dielectric constant and dissipation factor are required, crucibles for vacuum deposition, specific refractory parts etc.

SHAPEL-M soft is available in a trial pack containing assorted parts.

Mechanical Properties		Thermal Properties	
Density	2.9 g/cm ³	Thermal Expansion Coefficient	
Porosity	0%	25 to 400°C	4.4 x 10 ⁻⁶ /°C
Bending Strength	30 kg/mm ²	25 to 600°C	4.8 x 10 ⁻⁶ /°C
Compressive Strength	120 kg/mm ²	25 to 800°C	5.1 x 10 ⁻⁶ /°C
Modulus of Elasticity	1.9 x 10 ⁴	Thermal Conductivity	90 W/mK
Poissons Ratio	0.31	Max. Operating Temperature	
Vickers Hardness	390 kg/mm ²	in Air	1000°C
		in Nonoxidising Atmosphere	1900°C
		Thermal Shock Resistance ΔT	400°C
		(water quench)	

Electrical Properties		Chemical Properties	
Volume Resistivity	10 ¹² Ωcm	Resistance to Acid	0.2 mg/cm ² wt. loss
Dissipation Factor	0.001	(10% HCl, 24hrs, 25°C)	
Dielectric Constant	7.1	Resistance to Base	60 mg/cm ² wt. loss
Dielectric Strength	40 kV/mm	(10% NaOH, 24hrs, 25°C)	

EMA9

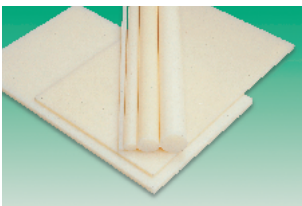
Rod 100mm Length		Price Each				
Ø mm	Order Code	1+	5+	10+	20+	50+
10	715-6534					
15	715-6546					
20	715-6558					
25	715-6560					

Dimensions mm		Price Each				
Dimensions	Order Code	1+	5+	10+	20+	50+
40 x 40 x 2	715-6571					
100 x 100 x 5	715-6583					
SHAPEL-M Trial Pack	715-6595					

All dimensions are approximate

Plastic Stock

Nylon 66 – ERTALON® 66SA



- Tough and resilient
- Good wear resistance
- Good electrical insulator
- Natural white colour
- Continuous working temperature 80°C (Max. 160°C)
- Good chemical resistance (pH5-11)
- Lightweight (1/6 vs steel)
- Good flexural fatigue resistance



Nylon 66 is a highly versatile engineering plastic due to its excellent combination of the above properties. Applications include: gears, bearings, rollers, wheels, cams, nuts, valve seats, pulleys, gaskets, electrical insulators.

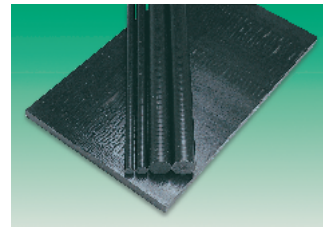
Specific gravity	1.14 - 1.15	Melt point	260°C
Water absorption	7-9% Max.	Thermal conductivity	0.24 W/K
Tensile strength	62-83 N/mm ²	Flammability	Self extinguishing
Flexural strength	86-97 N/mm ²	Volume resistivity	>10 ¹² Ωm
Shear strength	66 N/mm ²	Dielectric strength	< 2 kV/mm

EMA14

Rod 1 Metre Length	Quantity Per Lot	Order Code	1+	5+	20+
Diameter					
6	5	520-287			
10	5	520-299			
15	3	520-305			
20	2	520-317			
25	2	520-329			
30	2	520-330			
36	1	520-342			
40	1	520-354			
45	1	520-366			
50	1	520-378			
56	1	520-380			
60	1	520-391			
65	1	520-408			
70	1	520-410			
75	1	520-421			
Sheet					
8 x 500 x 305	2	520-433			
12 x 500 x 305	1	520-445			
16 x 500 x 305	1	520-457			
20 x 500 x 305	1	520-469			
25 x 500 x 305	1	520-470			
30 x 500 x 305	1	520-482			
40 x 500 x 305	1	520-494			
50 x 500 x 305	1	520-500			

All dimensions are approximate

Nylon 66 – ERTALON®



- High strength stiffness
- Excellent creep resistance
- Good dimensional stability
- Black colour
- Continuous working temperature 120°C (max. 145°C)
- Good chemical resistance (pH5-11)
- Good hydrolysis resistance
- Excellent electrical insulator
- The additional of 30% glass fibre produces an outstanding composite material which is ideal for demanding compression/load bearing applications. Applications: as for ERTALON® 66SA but at higher loads

Specific gravity	1.35	Thermal conductivity	0.24 W/K.m
Water absorption	5.5% Max.	Flammability	UL94-HB
Tensile strength (23°C dry)	190 N/mm ²	Volume resistivity	1013Ωcm
Flexural strength (23°C)	270 N/mm ²	Dielectric strength	45 kV/mm
Hardness (Rockwell)	M100	Surface resistivity	1012 Ohm
Melt point	255°C		

EMA15

Rod 1 Metre Length	Quantity Per Lot	Order Code	1+	5+	20+
Diameter					
10	5	520-512			
15	3	520-524			
20	2	520-536			
25	2	520-548			
30	2	520-550			
40	1	520-561			
50	1	520-573			
70	1	520-585			
Sheet Size					
10x500x305	1	520-597			
15x500x305	1	717-1249			
20x500x305	1	520-603			
25x500x305	1	520-615			
30x500x305	1	717-1250			
40x500x305	1	717-1262			
50x500x305	1	717-1274			

All dimensions are approximate

continued