

# Ultramid® SEG7

## Polyamide 6

### Product Description

Ultramid SEG7 is a 35% glass reinforced, injection molding type 6 nylon requiring high strength, surface aesthetics, and good processability. This product has excellent surface appearance while maintaining a good balance of physical properties, such as high strength, improved toughness, and chemical resistance. It features superior flow properties, and is suited for parts having thinner walls and those requiring long lengths. It shows lower pressure, temperature, and cycle time requirements than conventional grades.

### Applications

Applications include power tool, but can be used wherever strength and appearance are critical requirements, for example, automotive applications (door handles and mirrors).

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm	1183	1.41	
Moisture, %	62		
(24 Hour)		1	
(50% RH)		1.7	
(Saturation)		6.3	
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile stress at break, MPa	527		
23C		185	-
Tensile strain at break, %	527		
23C		3.5	-
THERMAL	ISO Test Method	Dry	Conditioned
Melting Point, C	3146	220	-
UL RATINGS	UL Test Method	Property Value	
Flammability Rating, 1.5mm	UL94	HB	
Relative Temperature Index, 1.5mm	UL746B		
Mechanical w/o Impact, C		120	
Mechanical w/ Impact, C		115	
Electrical, C		140	



## Mold Temperatures

This product can be processed over a wide range of mold temperatures; however, for applications where aesthetics are critical, a mold surface temperature of 80-95 degC (176-203 degF) is recommended.

## Pressures

Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final part and can be used effectively in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off.

Back pressure can be utilized to provide uniform melt consistency and reduce trapped air and gas. Minimal back pressure should be utilized to prevent glass breakage.

## Fill Rate

Fast fill rates are recommended to ensure uniform melt delivery to the cavity and prevent premature freezing. Surface appearance is directly affected by injection rate.

### Note

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