

# Ultramid® 8253

## Polyamide 6

### Product Description

Ultramid 8253 is an unreinforced, impact modified type 6 graft copolymer developed for both injection molding and extrusion applications. It is also available in heat stabilized (Ultramid 8253 HS) and/or pigmented versions. Copolymerization results in improved dry as molded toughness and increased flexibility to meet higher impact performance compared to conventional unreinforced homopolymers. Good nylon thermal and chemical properties are maintained along with good strength and stiffness retention.

### Applications

Ultramid 8253 is generally recommended for applications such as plugs, receptacles, flexible connector covers, weed trimmer components, clips, fasteners, flanges, key housings as well as many flexible tubing applications.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm	1183	1.09	
Moisture, %	62		
(24 Hour)		1.5	
(50% RH)		2.3	
(Saturation)		8.1	
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile Modulus, MPa	527		
-40C		2,840	3,300
23C		2,300	730
80C		400	370
121C		295	220
Tensile stress at yield, MPa	527		
-40C		117	116
23C		60	32
80C		25	20
121C		20	-
Tensile stress at break, MPa	527		
Tensile strain at yield, %	527		
23C		4	15
Nominal strain at break, %	527		
23C		40	>50
Flexural Strength, MPa	178		
23C		65	-
Flexural Modulus, MPa	178		
23C		1,900	-
IMPACT	ISO Test Method	Dry	Conditioned
Charpy Notched, kJ/m <sup>2</sup>	179		
23C		18	-
-30C		5	-
Charpy Unnotched, kJ/m <sup>2</sup>	179		



23C		N	-
THERMAL		ISO Test Method	
		Dry	Conditioned
Melting Point, C	3146	220	-
HDT A, C	75	55	-
Coef. of Linear Thermal Expansion, Parallel, mm/mm C		0.88 X10-4	-
Coef. of Linear Thermal Expansion, Normal, mm/mm C		0.93 X10-4	-
ELECTRICAL		ISO Test Method	
		Dry	Conditioned
Comparative Tracking Index	IEC 60112	600	-
Volume Resistivity	IEC 60093	>1E13	-
UL RATINGS		UL Test Method	Property Value
Flammability Rating, 1.5mm	UL94		HB
Relative Temperature Index, 1.5mm	UL746B		
Mechanical w/o Impact, C			85
Mechanical w/ Impact, C			75
Electrical, C			105

