

# Ultramid® 8202C HS BK102

## Polyamide 6



### Product Description

Ultramid 8202C HS BK102 is a heat stabilized, low viscosity, pigmented black, PA6, injection molding homopolymer possessing a modified crystalline structure for increased property performance and faster cycles. It is also available in non-heat stabilized (Ultramid 8202C).

### Applications

Ultramid 8202C HS BK102 is generally recommended for applications such as gears, valves, fittings, insulators, bushings, slides, window hardware, wiring devices, textile components and furniture casters.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm <sup>3</sup>	1183	1.13	
Moisture, %	62		
(24 Hour)		1.6	
(50% RH)		2.6	
(Saturation)		9.3	
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile Modulus, MPa	527		
23C		3,500	1,360
Tensile stress at yield, MPa	527		
23C		85	43
Tensile strain at yield, %	527		
23C		4	22
Nominal strain at break, %	527		
23C		10	>50
Flexural Strength, MPa	178		
23C		95	-
Flexural Modulus, MPa	178		
23C		2,800	-
Ball Indentation, MPa	2039-1	200	-
IMPACT	ISO Test Method	Dry	Conditioned
Charpy Notched, kJ/m <sup>2</sup>	179		
23C		3	-
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	60	-
HDT B, C	75	160	-
ELECTRICAL	ISO Test Method	Dry	Conditioned
Comparative Tracking Index	IEC 60112	600	-
Volume Resistivity (Ohm-m)	IEC 60093	>1E13	-
UL RATINGS	UL Test Method	Property Value	

Flammability Rating, .71mm	UL94	V-2
Relative Temperature Index, .71mm	UL746B	
Mechanical w/o Impact, C		95
Mechanical w/ Impact, C		95
Electrical, C		130
Flammability Rating, 1.5mm	UL94	V-2
Relative Temperature Index, 1.5mm	UL746B	
Mechanical w/o Impact, C		105
Mechanical w/ Impact, C		105
Electrical, C		130
Flammability Rating, 3.0mm	UL94	V-2
Relative Temperature Index, 3.0mm	UL746B	
Mechanical w/o Impact, C		105
Mechanical w/ Impact, C		105
Electrical, C		130
Flammability Rating, 6.0mm	UL94	V-2
Relative Temperature Index, 6.0mm	UL746B	
Mechanical w/o Impact, C		105
Mechanical w/ Impact, C		105
Electrical, C		130

## Processing Guidelines

### Material Handling

Max. Water content: 0.15%

Product is supplied in sealed containers and drying prior to molding is not required. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 80C (176F) is recommended. Drying time is dependent on moisture level, however 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF representative.

### Typical Profile

Melt Temperature: 240-285C (464-545F)

Mold Temperature: 65-80C (149-176F)

Injection and Packing Pressure: 35-125 bar (500-1500 psi)

### Mold Temperatures

A mold temperature of 65-80C (149-176F) is recommended, however temperatures of as low as 10C (50F) can be used where applicable.

### 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.

### Fill Rate

Fast fill rates are recommended to ensure uniform melt delivery to the cavity and prevent premature freezing.

## Note

## Note

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