Ultraform® N 2320 U017 UNC Q600
Polyoxymethylene (POM)

Ultraform N 2320 U017 UNC Q600 is a rapidly freezing UV stabilized general-purpose injection molding grade.

PHYSICAL	ISO Test Method	Property Value
Density, g/cm³	1183	1.41
Mold Shrinkage, parallel, %	294-4	2.1
Mold Shrinkage, normal, %	294-4	2.1
RHEOLOGICAL	**ISO Test Method**	**Property Value**
Melt Volume Rate (190 °C/2.16 Kg), cc/10min.	1133	9
MECHANICAL	**ISO Test Method**	**Property Value**
Tensile Modulus, MPa	527	
23°C		2,600
Tensile stress at yield, MPa	527	
23°C		61
Tensile strain at yield, %	527	
23°C		11
Nominal strain at break, %	527	
23°C		>50
IMPACT	**ISO Test Method**	**Property Value**
Charpy Notched, kJ/m²	179	
-30°C		6
23°C		6
THERMAL	**ISO Test Method**	**Property Value**

HDT A, ° C	75	90
HDT B, ° C	75	150

Processing Guidelines

Material Handling
Max. Water content: 0.15%
Product is supplied in polyethylene bags and drying prior to molding is not required. However, after relatively long storage or when handling material from previously opened containers, preliminary drying is recommended in order to remove any moisture which has been absorbed. If drying is required, a dehumidifying or desiccant dryer operating at 80 - 110°C (176 - 230°F) 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 190-230°C (375-446°F)
Mold Temperature 60-120°C (140-248°F)
Injection and Packing Pressure 35-70 bar (500-1000psi)

Mold Temperatures
A mold temperature of 60-120°C (140-248°F) is recommended, however temperatures of as low as 45°C (113°F) can be used where applicable.

Pressures
Injection speed must be optimized. A filling rate which is too high results in anisotropic mechanical properties, while a filling rate which is too low yields parts with poor surface finish. The tool must be vented to avoid burn marks and prevent mold deposits. 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.

Fill Rate
Injection speed must be optimized. A filling rate which is too high results in anisotropic mechanical properties, while a filling rate which is too low yields parts with poor surface finish. The tool must be vented to avoid burn marks and prevent mold deposits.

Note

BASF Corporation

Engineering Plastics
1609 Biddle Avenue
Wyandotte, MI 48192

General Information	Technical Assistance	Web address
800-BC-RESIN	800-527-TECH (734-324-5150)	http://www.plasticsportal.com/usa