

Ultradur® B 6550 FC

Polybutylene Terephthalate

BASF Corporation

Message:

The BASF Ultradur® FC (Food Contact) grades enable the industry to develop products for food contact applications which are in compliance with multiple regional food contact regulations including FDA, European Food Contact (EU) Nr. 11/2011 and GMP (EC) n°2023/2006. Additional food contact compliances may also be available. Please contact your local representative or plastics safety (E-Mail: plastics.safety@basf.com, Fax: +49 621-60-93253).

General Information			
Features	Food Contact Acceptable		
Uses	Non-specific Food Applications		
Agency Ratings	EC 1907/2006 (REACH)		
	EC 2023/2006		
	EU 10/2011		
	FDA Food Contact, Unspecified Rating		
RoHS Compliance	RoHS Compliant		
Appearance	Natural Color		
Forms	Pellets		
Processing Method	Extrusion		
	Injection Molding		
Resin ID (ISO 1043)	PBT		
Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm³	ISO 1183
Apparent Density	0.70 to 0.80	g/cm³	
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	9.00	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	2.1	%	
Flow	1.7	%	
Water Absorption			ISO 62
Saturation, 23°C	0.50	%	
Equilibrium, 23°C, 50% RH	0.25	%	
Viscosity Number ¹	160	cm³/g	ISO 307
Mold Shrinkage ²			
free, longitudinal	1.5	%	
free, transverse	1.5	%	
Maximum Service Temperature - short cycle operation	200	°C	

Temperature Index - at 50% loss of tensile strength			IEC 60216
-- ³	120	°C	
-- ⁴	140	°C	
Automotive Materials (> 1.00 mm)	Passed		FMVSS 302
ISO Type	PBT, EGHLN, 15-020		ISO 7792
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	130	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2400	MPa	ISO 527-2
Tensile Stress (Yield)	54.0	MPa	ISO 527-2/50
Tensile Strain (Yield)	3.5	%	ISO 527-2/50
Nominal Tensile Strain at Break	> 50	%	ISO 527-2/50
Tensile Creep Modulus ⁵ (1000 hr)	1100	MPa	ISO 899-1
Flexural Modulus	2500	MPa	ISO 178
Flexural Stress	85.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	6.1	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	No Break		ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	135	°C	ISO 75-2/B
1.8 MPa, Unannealed	55.0	°C	ISO 75-2/A
Melting Temperature	223	°C	ISO 11357-3
CLTE - Flow (23 to 80°C)	1.3E-4 to 1.6E-4	cm/cm/°C	ISO 11359-2
Specific Heat	1500	J/kg/°C	
Thermal Conductivity	0.27	W/m/K	DIN 52612
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms · cm	IEC 60093
Relative Permittivity			IEC 60250
100 Hz	3.30		
1 MHz	3.30		
Dissipation Factor			IEC 60250
100 Hz	1.0E-3		
1 MHz	0.020		
Comparative Tracking Index (Solution A)	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.400 mm	HB		
1.60 mm	HB		
Injection	Nominal Value	Unit	

Processing (Melt) Temp	250 to 275	°C
Mold Temperature	40.0 to 80.0	°C
Extrusion	Nominal Value	Unit
Melt Temperature	250 to 275	°C
NOTE		

1.	solution 0,005 g/ml Phenole/1,2 Dichlorbenzol 1:1
2.	plate with film gate 150*150*3 mm ³
3.	20000 h
4.	5000 h
5.	strain <= 0.5%, 23°C

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