Technical Data Sheet

Product name: IC3D Standard ABS
Revision date: 07/01/2020
Print date 07/01/2020

General Information

General			
Material Status	- Commercial: Active		
Availability	- Africa & Middle East - Asia Pacific	- Europe - Latin America	- North America
Features	- High Impact Resistance		
RoHS Compliance	- RoHS Compliant		
Automotive Specifications	- ASTM D4673 ABS0120 B43420	Available Colors: Black, Blue, Green, Grey, Natural, Orange, Red, White, Yellow	
Resin ID (ISO 1043)	- >ABS<		

ASTM & ISO Properties[1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity[2]	1.03		ASTM D792
Density (73°F)	1.03	g/cm³	ISO 1183
Melt Mass-Flow Rate (200°C/5.0 kg)	1.1	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	13	cm³/10 min	ISO 1133
Molding Shrinkage	0.40 to 0.70	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength[3] (Yield)	5470	psi	ASTM D638
Tensile Stress (Yield)	5800	psi	ISO 527-2/50
Tensile Stress (Break)	4350	psi	ISO 527-2/50
Tensile Elongation[3] (Break)	30	%	ASTM D638
Tensile Strain (Break)	35	%	ISO 527-2/50
Flexural Modulus[4]	310000	psi	ASTM D790
Flexural Modulus[5]	261000	psi	ISO 178
Flexural Strength[4]	8800	psi	ASTM D790
Flexural Stress[5]	8410	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-22°F	12	ft-lb/in²	
73°F	17	ft-lb/in²	
Notched Izod Impact			ASTM D256
73°F, 0.126 in	7.5	ft-lb/in	
73°F, 0.252 in	5.9	ft-lb/in	
Notched Izod Impact Strength			ISO 180/1A
-22°F	11	ft-lb/in²	
73°F	16	ft-lb/in²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	108		ASTM D785

Technical Data Sheet

Product name: IC3D Standard ABS
Revision date: 07/01/2020
Print date 07/01/2020

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	367	°F	ASTM D648
Heat Deflection Temperature 264 psi, Unannealed	180	°F	ISO 75-2/A
Deflection Temperature Under Load 264 psi, Annealed	397	°F	ASTM D648
Heat Deflection Temperature 264 psi, Annealed	207	°F	ISO 75-2/A
Vicat Softening Temperature	423	°F	ASTM D1525[6]
Vicat Softening Temperature -- --	205 219	°F	ISO 306/B50 ISO 306/A50
CLTE - Flow	5.20E-05	in/in/°F	ISO 11359-2

Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176 to 185	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	356 to 428	°F
Middle Temperature	374 to 446	°F
Front Temperature	374 to 446	°F
Mold Temperature	86 to 158	°F

Notes
[1] Typical properties: these are not to be construed as specifications.
[2] 23°C
[3] 0.24 in/min
[4] 0.11 in/min
[5] 0.079 in/min
[6] Rate A (50°C/h), Loading 1 (10 N)