

# VALOX™ RESIN 312

REGION ASIA

## DESCRIPTION

Unreinforced, For compounding only (not for injection molding), Medium viscosity.

## TYPICAL PROPERTY VALUES

Revision 20170913

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 50 mm/min	51	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	300	%	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	82	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2340	MPa	ASTM D 790
Hardness, Rockwell R	117	-	ASTM D 785
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	1602	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Modified Gardner, 23°C	40	J	ASTM D 3029
<b>THERMAL</b>			
HDT, 0.45 MPa, 6.4 mm, unannealed	154	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	54	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.1E-05	1/°C	ASTM E 831
CTE, 60°C to 138°C, flow	1.39E-04	1/°C	ASTM E 831
<b>PHYSICAL</b>			
Specific Gravity	1.31	-	ASTM D 792
Specific Volume	0.77	cm <sup>3</sup> /g	ASTM D 792
Water Absorption, 24 hours	0.08	%	ASTM D 570
Mold Shrinkage, flow, 0.75-2.3 mm (5)	0.9 – 1.6	%	SABIC method
Mold Shrinkage, flow, 2.3-4.6 mm (5)	1.5 – 2.3	%	SABIC method
Mold Shrinkage, xflow, 0.75-2.3 mm (5)	1 – 1.7	%	SABIC method
Mold Shrinkage, xflow, 2.3-4.6 mm (5)	1.6 – 2.4	%	SABIC method
<b>ELECTRICAL</b>			
Volume Resistivity	>4.E+16	Ohm-cm	ASTM D 257
Dielectric Strength, in air, 3.2 mm	15.7	kV/mm	ASTM D 149
Dielectric Strength, in oil, 1.6 mm	23.2	kV/mm	ASTM D 149
Relative Permittivity, 100 Hz	3.3	-	ASTM D 150

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Relative Permittivity, 1 MHz	3.1	-	ASTM D 150
Dissipation Factor, 100 Hz	0.002	-	ASTM D 150
Dissipation Factor, 1 kHz	0.4193	-	ASTM D 150
Dissipation Factor, 1 MHz	0.02	-	ASTM D 150
<b>COMPOUNDING EXTRUSION</b>			
Drying Temperature	110 – 120	°C	
Drying Time	4 – 6	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0	%	
Melt Temperature	245 – 260	°C	
Barrel - Zone 1 Temperature	200 – 230	°C	
Barrel - Zone 2 Temperature	240 – 255	°C	
Barrel - Zone 3 Temperature	240 – 275	°C	
Barrel - Zone 4 Temperature	240 – 275	°C	
Adapter Temperature	240 – 275	°C	
Die Temperature	240 – 275	°C	
Waterbath Temperature	25 – 35	°C	

## DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a “seller”), is made exclusively under seller’s standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer’s particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.