

## AMORVON® W-40

- **Out line:** W-40 is a 40% glass fiber reinforced modified PPS compound that is low warp and low flash and is developed to provide for precision moldings. Especially, W-40 has excellent creep resistance and rigidity at elevated temperature.
- **Color:** Black

### Engineering Properties of W-40

Properties	Test Method	Unit	W-40
General Information			
	<ASTM>		GF40% Modified PPS "AMORVON"
<b>Physical</b>			
Specific gravity	D-792	-	1.68
Water absorption, 23deg. /24Hrs. /in water	D-570	Wt. %	0.05
Mold shrinkage, MD /TD <sup>a</sup>	D-955	%	0.25/1.0
<b>Mechanical</b>			
Tensile strength	D-638	MPa	170
Tensile modulus	D-638	MPa	15000
Tensile elongation at break	D-638	%	1.5
Poisson's ratio	-	-	0.36
Flexural strength	D-790	MPa	250
Flexural modulus	D-790	MPa	14000
Flexural elongation at break	D-790	%	1.8
Izod impact strength	D-256	J/m	
notched / un notched			80/480
Compressive strength	D-695	MPa	190
Rockwell hardness, R/M	D-785	-	121/100
Coefficient of friction <sup>b</sup> , static /dynamic	-	-	0.35/0.35
<b>Thermal</b>			
Distortion temp. of under load, 1.82MPa	D-648	°C	230
Coefficient of thermal expansion <sup>c</sup> , -30 to 90°C	D-696	m/mK	2.0x10 <sup>-5</sup>
UL Flammability <sup>d</sup> , t~0.8mm	UL-94	-	V-0
<b>Electrical</b>			
Dielectric strength, t=1.6mm	D-149	kv/mm	16
Dielectric constant, 1MHz	D-150	-	4
Dissipation factor, 1MHz	D-150	-	0.002
Comparative tracking index (CTI)	D-3638	Volt	-
Arc resistance	D-495	sec.	120
Volume resistibility	D-257	Ohm.cm	10 <sup>16</sup>
<b>Process Conditions</b>			
Cylinder temperature	-	°C	300-340
Mold temperature	-	°C	120-150

a: MD; Mold direction, TD; Transverse direction, b: P=150KPa, V=0.3m/s, PPS vs. carbon steel, c: Average value of MD & TD, d: UL file No. E53829



★Please refer to Material Safety Data Sheet for safety precautions prior to use. The information contained in this data sheet is based on tests or research DIC Corporation ("DIC") believes to be reliable, but no warranty is given by DIC concerning the accuracy or completeness thereof. The supply of the information does not release the recipient from the obligation to test the products as to their suitability for the intended applications and processes. DIC has no liability for any consequence of the application, processing or use of the information or the products. Information concerning the application of the products is not and should not be construed as a warranty as to non-infringement of intellectual property for a particular application.