



Noryl - Polyphenylene-Oxide

WESTLAKE
PLASTICS COMPANY

Norylux™ (modified polyphenylene oxide)

Norylux modified PPO is a strong engineering plastic with outstanding mechanical, thermal, and electrical properties. Low moisture absorption and low thermal expansion make Norylux one of the most dimensionally stable thermoplastics available. Norylux is widely used for electrical housings and structural components since it has excellent insulating properties, flame resistance, and dimensional stability over a wide range of service temperatures. Norylux is often selected for fluid handling applications since it has low moisture absorption and excellent strength and stiffness. Norylux is easy to fabricate paint, and glue. The following physical property information is based on typical values of the base modified polyphenylene oxide resin.

Applications Include:

- Manifolds
- Pump, valve, and fitting applications
- Scientific and analytical instrument components
- Housings
- Covers
- Electrical components

Advantages of Norylux:

- Excellent dimensional stability
- Low moisture absorption
- Good strength and stiffness over a wide range of service temperatures
- Good impact resistance
- High dielectric strength
- Easy to fabricate, paint, and glue
- Excellent flammability rating (UL94 V-1 @ .058" thick)

Manufacturing Capabilities:

Rod: 1/8" to 8" diameter
Sheet: .030" to 6" thick
Film: .005" to .029" thick

Colors/Grades:

Black (standard)
Glass-filled (gray)
(custom colors available)
FDAcompliant grades available on a custom basis

*In addition to our standard capabilities, Westlake also has the ability to process custom resins in various sizes and colors with some exceptions.

	Units	ASTM Test	EN-265	30% GF
Mechanical				
Flexural Modulus	psi	D790	370,000	830,000
Flexural Strength @yield	psi	D790	14,400	22,000
Hardness-Rockwell	—	D785	R119	L106
Izod Impact Strength				
Notched @-40°F	ft•lbs/in	D256	2.5	1.8
Notched @73°F	ft•lbs/in	D256	3.5	2.0
Tensile Elongation @break	%	D638	25.0	5.0
Tensile Strength @yield	psi	D638	9,200	15,500
Thermal				
Coefficient of Thermal Expansion	in/in/°F	D696	3.3x10 ⁻⁵	1.4x10 ⁻⁵
Flammability Rating-UL94				
@.058"	—	—	V-1	V-1
@.236"	—	—	V-0	V-0
Heat Deflection Temperature				
@66psi	°F	D648	—	280
@264psi	°F	D648	254	270
Electrical				
Dielectric Constant @60Hz	—	D150	2.69	2.98
Dielectric Strength	V/mil	D149	500	600
Dissipation Factor @60Hz	—	D150	0.0007	0.0016
Other				
Specific Gravity	—	D792	1.08	1.23
Water Absorption				
@24 hours	%	D570	0.070	0.060

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