

INNOVATIVE PLASTICS
PRODUCT LINE GUIDE
NORYL™ RESINS



NORYL™ resins

NORYL resin is a blend of PPO resin and polystyrene.

General Value Propositions:

- Good electrical properties
- Excellent hydrolytic stability
- Excellent dimensional stability
- Good processability
- Affordable high heat resistance
- Ability to use non-halogen FR packages
- Chemical resistance to many acids, bases and cleaners
- Outdoor weatherability
- Global potable water listings (NSF, KTW, WRAS, ACS)

NORYL GTX™ resins

Noryl GTX blends polyamide (PA) and modified polyphenylene ether polymer (PPE) technology.

Added Value Propositions

- Better dimensional stability than nylon
- Higher stiffness and strength than nylon
- NSF-listed for potable water (Standard 61)

**NORYL resin in Fluid Engineering
Benefits compared to metals**

- No lead content
- Competitive solution vs. lead-free brass
- Corrosion-resistant
- Design flexibility
- Opportunity for part consolidation
- Lower weight can reduce transport costs
- Processing productivity

NORYL PPX™ resins

The Noryl PPX alloy of polyphenylene ether (PPE) and polypropylene (PP) is an engineering thermoplastic olefin that combines:

Added Value Propositions

- Low moisture absorption
- Better dimensional stability than PP
- Higher stiffness and heat than TPOs and ABS
- NSF listed for potable water (Standard 61)



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NORYL™ RESINS - PORTFOLIO

Flexural Modus, 2mm/min, MPa; IZOD Impact, unnotched 23°C kJ/m²; *notched 80*10*4 +23°C kJ/m²
 VICAT Softening Temp , Rate B/120°C; UL94 Flame Cla ss Rating

	MVR	FLEX MOD	Vicat	IZOD	Density	UL
Fluid Engineering grades						
FE1410PW 10% glass reinforced	32 ³	4880	140	230	1.13	-
FE1520PW 20% glass reinforced	22 ³	6040	144	400	1.24	-
FE1630PW 30% glass reinforced	30 ¹	8120	158	85*	1.3	-
FE1740PW 40% glass reinforced	20 ¹	9500	151	108*	1.4	-
NORYL CLASSICO resins						
GFN1 10% glass reinforced	8 ²	3500	130	20	1.17	94HB/1.5
GFN2 20% glass reinforced	15 ³	4500	140	23	1.25	94HB/1.5
GFN3 30% glass reinforced	7 ³	6000	155	25	1.3	94HB/1.5
SE1GFN1 10% glass reinforced	15 ³	3000	140	25	1.16	94V-1/1.5
SE1GFN2 20% glass reinforced	12 ³	4500	140	25	1.25	94V-0/6
SE1GFN3 30% glass reinforced	9 ³	6000	150	25	1.29	94V-0/6
V0150B High heat, thin wall	10 ⁴	2400	155	13*	1.11	94V-0/1.5
NORYL GTX™ resin						
GTX989 Conductive, high heat	19 ²	2300	180	22*	1.08	-
High Heat NORYL grades						
6390C PPE+PS, High heat	8 ³	2600	192	4*	1.07	-
6390H PPE+HIPS, High heat	4 ³	2600	191	5*	1.07	-
Concentrates						
6850C PPO+PS	48 ²	2900	145	1*	1.06	-
6850H PPO+HIPS	20 ²	2380	147	10*	1.06	-
Flexible NORYL grade						
WCD801A Flame retardant	11 ⁶	-	-	-	1.1	94V-0/4

1. MVR: 300°C/10kg, cm³/10min
2. MVR: 280°C/5kg, cm³/10min
3. MVR: 280°C/10kg, cm³/10min
4. MVR: 300°C/5kg, cm³/10min
5. MVR: 250°C/10kg, cm³/10min
6. MVR: 250°C/5kg, cm³/10min

Please consult our product brochures or company website to view our complete portfolio.

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NORYL™ RESINS - MARKETS

Automotive

- Weight / size reduction to lower fuel consumption and emissions
- Non-brominated, non-chlorinated flame retardant
- Thin wall capability (ISO 6722)
- Dimensional stability
- Chemical resistance
- High fatigue resistance

Portfolio: GTX989



Fluid Engineering

- Excellent dimensional stability
- High fatigue resistance
- Good mechanical resistance
- Excellent hydrolytic stability
- High heat resistance
- Weight reduction
- Chlorine resistance
- Global food contact approval
- WRAS, ACS, KTW, W270, NSF61 certified

Portfolio: FE1410PW, FE1520PW, FE1630PW, FE1740PW



Wire and Cable

- Meets requirement class A and B wire heat aging
- Easy processing with fast throughput
- Meets international recyclability standards
- Weight / size reduction to lower fuel consumption and emissions
- Non-brominated, non-chlorinated flame retardant
- Thin wall capability (ISO 6722)
- Abrasion resistance
- Chemical resistance
- Low specific gravity

Portfolio: WCD801A, WCV072, WCP781

Consumer & Consumer Electronics Electrical / Lighting

- Excellent dimensional stability
- High fatigue resistance
- Good mechanical resistance
- Excellent hydrolytic stability
- Non-brominated, non-chlorinated flame retardant
- High heat resistance
- Thin wall capability
- Easy processing

Portfolio: SE1GFN1, PX9406, GFN3, SE1



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