

---

**PRODUCT PROFILE**

## **Vydyne<sup>®</sup> FR350J**

Safer, high-performing PA66 resin  
for unattended appliances

Ascend's Vydyne FR350J is an unreinforced, flame-retardant PA66 resin designed for unattended appliance electrical connectors. FR350J exhibits best-in-class glow wire ignition temperatures (GWIT) of 960°C at all thicknesses (0.4-3.0 mm) and 800°C with no flame according to UL testing via IEC 60695-2-13. Finished molded parts passed the unattended appliance standard, IEC 60335-1, and achieved GWEPT of 775°C with no flame. In addition to high GWIT values, Vydyne FR350J is engineered with high elongation and ductility to allow engineers greater design freedom with final molded part geometries. FR350J resin has superior melt flow, reduced mold pressure and reduced cycle time – increasing your production yields while reducing costs.



# Vydyne® FR350J

## Product features:

- Unfilled, flame-retardant PA66 resin
- High glow wire - GWIT 960°C (0.4 - 3.0 mm)
- GWIT 800°C no flame (0.4 - 3.0 mm)
- GWEPT 775°C no flame
- V-0 flammability rating (0.4 - 3.0 mm)
- HWI and HAI = PLC 0 at all thicknesses
- RTI electrical of 130°C
- Elongation >15% for living hinge design
- Meets IEC 60335-1 requirements

## Benefits:

- Superior GWIT with zero flame
- Superior ductility for enhanced living hinge, latch and snap-fit performance and design
- Low contact corrosion for improved electrical contact performance
- Wide processing window
- REACH and RoHS compliant
- Color stable for natural and colorable applications



**Product:** FR350J

**Category:** Halogenated, flame-retardant grade

**Characteristics:** • Unreinforced PA66 • High GWIT • High elongation

Property	Nominal Value	Units	Test Method
Melting Point	265	°C	ISO 11357-3
Heat Deflection Temperature (HDT), 1.8 MPa	75.0	°C	ISO 75-2/A
Tensile Modulus	3200	MPa	ISO 527-2
Tensile Strain at Break	15	%	ISO 527-2
Tensile Stress at Break	70.0	MPa	ISO 527-2
Flexural Strength	90.0	MPa	ISO 178
Flame Class	V-0, 0.4 mm	-	UL 94
Hot Wire Ignition (HWI)	PLC 0	-	UL 746
High Amp Arc Ignition (HAI)	PLC 0	-	UL 746
Comparative Tracking Index (CTI)	250 to 399	V	IEC 60112
Dielectric Strength	17	kV/mm	IEC 60243
Volume Resistivity	1.0E+18	ohms-cm	IEC 60093
Glow Wire End Product Test (GWEPT)	775	°C	IEC 60695-2-11
Glow Wire Flammability Index (GWFI)	960	°C	EIC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	960	°C	EIC 60695-2-13
Relative Thermal Index Electrical	130	°C	UL 746B
Relative Thermal Index Strength	110	°C	UL 746B

For more information, contact our expert applications specialists or visit [ascendmaterials.com](http://ascendmaterials.com).

©2018 Ascend Performance Materials Operations LLC. The Ascend Performance Materials and Vydyne marks and logos are trademarks or registered trademarks of Ascend Performance Materials Operations LLC.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Ascend Performance Materials Operations LLC makes no representations or warranties as to the completeness or accuracy thereof. The full disclaimer of warranty and liability can be found at [ascendmaterials.com/disclaimer](http://ascendmaterials.com/disclaimer). Rev. 02/2018



inspiring everyday