

application profile: flame-retardant terminal block

Vydyne[®] PA66 compounds have been specified in electrical and electronic applications for many years. Plastic components in these applications are subject to exacting regulatory requirements, including fire safety standards. They also must demonstrate superior mechanical and thermal performance while maintaining dimensional integrity. The performance, quality and consistency of our products make the difference in your applications.



Products Used: ECO315J, ECO366H, 909 **Benefits:** UL94-VO Rating • Electrical Tracking Resistance (CTI) • Dielectric Strength • Superior Flow • Halogen-Free

Application Description

Pictured at right is a terminal block for an electronic application. Parts such

as this are used for a wide range of E/E applications throughout the consumer electronics, automotive, cellular and appliance industries.



The Challenge

As demand for terminal blocks increases, so does the need for innovative and durable designs. Flame retardation, glow-wire acceptability, miniaturization, heat stability and low cost are all essentials for these commonly used parts.

The Vydyne Difference

Vydyne products expand your manufacturing possibilities so you can push application limits. Vydyne quality can also lower your costs by reducing cycle times and injection-molding reject rates. For smaller components, superior flow makes it possible to mold thinner wall sections without losing strength and toughness. For halogen-free electronic applications, ECO315J and ECO366H meet the challenge without sacrificing processing performance. Where additional strength is required, Vydyne 909 with 25% glass fiber reinforcement will meet your needs.

For more information, see your Ascend representative or visit www.ascendmaterials.com.

Vydyne Solutions

Product			ECO315J	ECO366H	909
Characteristics			Unfilled PA66/6Halogen-freeHigh elongation	Unfilled PA66Halogen-free	 25% GF PA66/6 Halogenated FR Mold release
Property	Test Method	Units			
Specific Gravity	ISO 1183	g/cm ³	1.16	1.17	1.47
Yield Stress	ISO 527	MPa	75	85	127
Nominal Strain at Break	ISO 527	%	25	10	2.2
Flexural Modulus	ISO 178	MPa	3,200	3,900	8,300
Flame Class	UL 94	-	V-0, 0.4 mm	V-0, 0.4 mm	V-0, 0.4 mm
Comparative Tracking Index (CTI)	IEC 60112	PLC	PLC 0	PLC 0	PLC 2
Dielectric Strength	IEC 60243	kV/mm	13	17	13
Hot-wire Ignition (HWI)	UL 746A	PLC	PLC 4, 0.4 mm	PLC 4, 0.4 mm	PLC 0, 0.4 mm
High Amp Arc Ignition (HAI)	UL 746A	PLC	PLC 0, 0.4 mm	PLC 0, 0.4 mm	PLC 0, 0.4 mm
Relative Thermal Index (RTI), Electrical	UL 746B	°C	130, 0.4 mm	150, 0.4 mm	130, 0.75 mm
Relative Thermal Index (RTI), Strength	UL 746B	°C	100, 0.4 mm	130, 0.4 mm	110, 0.75 mm

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