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EMS
EMS-GRIVORY

EMS-GRIVORY HT SERIES

Grivory® HT is a semi-crystalline thermoplastic structural material based on polyphthalamide (PPA). Grivory® HT is characterized by its high-performance properties.

Grivory® HT is separated into four classes of its base polymer:

GRADE	POLYAMIDE TYPE	MELTING/GLASS TRANSITION POINT
HT1	6T/6I	325C / 130C
HT2	6T/66	310C / 95C
HT3	10T/X	295C / 120C
HT6	6T/8T/X	320C / 130C

EMS-GRIVORY produces compounds of all HT series of materials ranging from glass fiber, mineral, PTFE, and carbon fiber fillers and optimized for a variety of challenging applications. EMS-GRIVORY has a solution for many applications ranging from automotive, electronics, FDA, drinking water equipment, power tools, etc.

Advantages of Grivory® HT:

- ✓ Stiffness and strength at high operating temperatures
- ✓ Little change in property values after absorption of water
- ✓ Good dimensional stability and low warpage
- ✓ Good chemical resistance
- ✓ Good surface quality
- ✓ Economical production

Product	Polymer Type	Flame Rated	Hydrolysis Resistance	Alcohol Resistance	Friction/Wear Properties	Improved Impact	UV & Weathering (BK 9916/9225/9205)	Automotive	NSF Listed	FDA	Typical Applications	Comments
HTV-3H1	6T/6I						x	x			Technical parts in contact with chemicals requiring high application temperatures	30-65 wt% glass-fiber reinforcement based on polyphthalamide PA 6T/6I
HTV-4H1	6T/6I						x	x	x			
HTV-45H1	6T/6I						x	x				
HTV-5H1	6T/6I						x	x				
HTV-6H1	6T/6I						x	x				
HT1V-65H	6T/6I		x				x	x				
HT1V-3 FWA	6T/6I		x				x		x	x	Sanitary applications, FDA, and appliances in direct contact with drinking water and foodstuffs	30-60 wt% glass-fiber reinforcement. Approved for direct contact with drinking water as per ACS, KTW, W270, WRAS and NSF standards
HT1V-4 FWA	6T/6I		x				x		x	x		
HT1V-5 FWA	6T/6I		x				x		x	x		
HT1V-6 FWA	6T/6I		x				x		x	x		
HT1VA-4 FWA	6T/6I								x	x		
HT1VA-5 FWA	6T/6I								x	x		
HTV-4X1 Black 9205	6T/6I						x	x			Electronics exposed to heat and high voltage	40-60 wt % glass-fiber reinforcement based on polyphthalamide
HTV-5X1 Black 9205	6T/6I						x	x				
HTV-6X1 Black 9205	6T/6I						x	x				
HT1V-3 HY	6T/6I		x				x	x			Hot-water housings and functional components in automotive, construction, and sanitary	Hydrolysis-optimized with 30-50 wt% glass-fiber reinforcement
HT1V-4 HY	6T/6I		x				x	x				
HT1V-5 HY	6T/6I		x				x	x				
HT1VA-4 HY	6T/6I								x			
HT1VA-5 HY	6T/6I								x			
HT1VA-35 HYS	6T/6I								x			

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HTM-4H1	6T/6I							x	x		Functional and visible components in automotive with electrochemical surface coatings	Mineral-reinforced (40 wt%) injection-molding grade based on polyphthalamide PA6T/6I
HT1V-33X LED White 6861	6T/6I							x			Thin-walled LED reflector housings	33 wt% glass-fiber reinforcement. High light reflection, good flowability, good strength and stiffness values
HT1V-33X UV White 6861	6T/6I							x				
HT2V-3H	6T/66						x	x			Functional components in contact with chemicals, requiring high temperature exposure	30-60 wt% glass-fiber reinforcement. Stiff and strong at high application temperatures
HT2V-4H	6T/66						x	x				
HT2V-45H	6T/66						x	x				
HT2V-5H	6T/66						x	x				
HT2V-6H	6T/66						x	x				
HT2V-3H LF	6T/66		x	x	x			x			Tribologically stressed functional parts (joint sleeves, bearing halves, guide channels, sliders)	PTFE-modified with 30 wt% glass-fiber reinforcement. Low wear, heat stabilized, and dimensionally stable
HT2C-3X LF Black 9833	6T/66			x	x			x			Bearing and slide components	PTFE modified with 30 wt% carbon fiber reinforcement. High strength, conductivity, very low density
HT2V-3X V0	6T/66	x		x				x			Flammability resistance as a prerequisite. Suitable for industrial soldering processes	FR, halogen-free grades with 30-50 wt% glass-fiber reinforcement. Self-extinguishing (UL 94 V-0). UL listed
HT2V-4X V0	6T/66	x						x				
HT2V-5X V0	6T/66	x						x				
HT2C-3X	6T/66			x	x			x			Tribologically stressed functional components	Carbon-fiber-reinforced (30 wt%) injection-molding grade based on polyphthalamide PA6T/66

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HT2VZ-15H	6T/66			x		x		x			Components in contact with chemicals and requiring elevated heat performance	15-33 wt% glass-fiber reinforcement
HT2VZ-33H	6T/66					x		x				
HT2VZ-25X	6T/66					x		x				
HT2VS-3HH	6T/66			x				x			Turbo-charger air ducts exposed to extremely high thermal stresses	30-45 wt% glass-fiber reinforcement based on polyphthalamide, PA6T/66
HT2VS-45HH	6T/66			x				x				
HT3Z Black	10T/X		x	x		x		x			Bearing components in automotive and electronics	Unreinforced injection-molding grade, impact resistant
XE 4202 Black 9564	10T/X							x			Smooth and corrugated tubes (e.g. tubes for Urea, oil etc. under the hood)	Extrusion grade unreinforced polyphthalamide
HT XE 11629 [HT6-GF30HNZ]	6T/8T/X					x		x			Pressurized gear box covers, automotive under the hood	30-60% glass-fiber reinforcement. Extreme creep resistance. 165% higher stiffness than Grivory® HT1
HT XE 10129 [HT6-GF40H] BK9205	6T/8T/X							x				
HT XE 11635 [HT6-40GFHY] BK9205	6T/8T/X		x					x				
HT XE 11600 [HT6-GF40X] BK9205	6T/8T/X							x				
HT XE 11602 [HT6-GF50H] BK9205	6T/8T/X							x				
HT XE 11612 [HT6-GF50HS] Black	6T/8T/X							x				
HT XE 11601 [HT6-GF50X] BK9205	6T/8T/X							x				
HT XE 11627 [HT6-GF60H] BK9205	6T/8T/X							x				
HT XE 11637 [HT6-GF60X] Black	6T/8T/X							x				