

Grivory® HTV-4H1 black 9205

Polyamide 6I/6T Copolymer

EMS-GRIVORY

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

Grivory® HTV-4H1 black 9205 is a Polyamide 6I/6T Copolymer (Nylon 6I/6T) material filled with 40% glass fiber. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of Grivory® HTV-4H1 black 9205 are:

- Flame Rated
- RoHS Compliant
- Heat Resistant
- UV Resistant

Typical applications include:

- Automotive
- Appliances
- Consumer Goods
- Electrical/Electronic Applications
- Engineering/Industrial Parts

General

Material Status	• Commercial: Active
Literature ¹	• Processing - Injection (German) • Technical Datasheet (English)
UL Yellow Card ²	• E53898-243894 • E53898-102346154
Search for UL Yellow Card	• EMS-GRIVORY • Grivory®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight
Features	• Good Heat Resistance • UV Resistant
Uses	• Appliance Components • Automotive Applications • Automotive Exterior Parts • Automotive Interior Parts • Consumer Applications • Electrical/Electronic Applications • Engineering Parts • Household Goods • Hydraulic Applications • Industrial Applications • Pneumatic Applications • Power/Other Tools • Sporting Goods
Agency Ratings	• NSF STD-61
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Forms	• Granules
Processing Method	• Injection Molding
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1) • Shear Modulus vs. Temperature (ISO 11403-1) • Specific Volume vs Temperature (ISO 11403-2) • Viscosity vs. Shear Rate (ISO 11403-2)
ISO Type (ISO 1874)	• PA 6T/6I, MH, 12-140, GF40

Physical	Dry	Conditioned	Unit	Test Method
Density	1.53	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.70	--	%	
Flow	0.10	--	%	
Water Absorption				ISO 62
Saturation, 23°C	3.5	--	%	
Equilibrium, 23°C, 50% RH	1.5	--	%	



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Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	14500	14000	MPa	ISO 527-1
Tensile Stress (Break)	220	210	MPa	ISO 527-2
Tensile Strain (Break)	2.0	2.0	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	8.0	8.0	kJ/m ²	
23°C	8.0	8.0	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	70	70	kJ/m ²	
23°C	70	70	kJ/m ²	
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	310	300	MPa	ISO 2039-1
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
1.8 MPa, Unannealed	280	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	200	--	°C	ISO 75-2/C
Continuous Use Temperature				
-- ⁴	150	--	°C	ISO 2578
-- ⁵	270	--	°C	Internal Method
Melting Temperature ⁶	325	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.5E-5	--	cm/cm/°C	
Transverse	5.0E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+13	1.0E+13	ohms-cm	IEC 60093
Electric Strength	30	30	kV/mm	IEC 60243-1
Comparative Tracking Index	--	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification (0.8 mm)	HB	--		IEC 60695-11-10, -20

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ Long Term

⁵ Short Term

⁶ 10°C/min



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Where to Buy

Supplier

EMS-GRIVORY

Sumter, Sumter USA

Telephone: 803-481-6171

Web: <http://www.emsgrivory.com/>

Distributor

Conventus Polymers

Telephone: 973-343-7669

Web: <http://www.conventuspolymers.com/>

Availability: North America

Entec Polymers

Telephone: 833-319-0299

Web: https://www.entecpolymers.com/?utm_source=ul&utm_medium=paid%20association&utm_campaign=entec%20%7C%20entec%201&utm_term=ul%20%7C%20where%20to%20buy

Availability: North America

Entec Polymers Latin America

Contact Entec Polymers for availability of individual products by country.

Web: <https://www.entecpolymers.com/>

Availability: Latin America

PolySource

PolySource is a North American resin and plastics distributor. Please feel to reach out to your Technical Sales Account Manager. <https://polysource.net/our-team/>

Telephone: 866-558-5300

Web: <http://www.polysource.net/>

Availability: North America

