

# LNPT<sup>TM</sup> THERMOCOMP<sup>TM</sup> COMPOUND DF008ERH

FORMERLY KNOWN AS "DF-1008 EM MR HC"

## DESCRIPTION

LNP THERMOCOMP DF008ERH compound is based on Polycarbonate (PC) resin containing 40% glass fiber. Added features of this grade include: Easy Molding, Mold Release, Healthcare.

GENERAL INFORMATION	
Features	Good Processability, Healthcare/Formula lock, Enhanced mold release, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, break	136	MPa	ASTM D638
Tensile Strain, break	2.3	%	ASTM D638
Tensile Modulus, 50 mm/min	11810	MPa	ASTM D638
Flexural Stress	204	MPa	ASTM D790
Flexural Modulus	11260	MPa	ASTM D790
Tensile Stress, break	136	MPa	ISO 527
Tensile Strain, break	2.2	%	ISO 527
Tensile Modulus, 1 mm/min	11170	MPa	ISO 527
Flexural Stress	203	MPa	ISO 178
Flexural Modulus	10970	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	450	J/m	ASTM D4812
Izod Impact, notched, 23°C	80	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	13	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80°10°4 +23°C	53	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	11	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
HDT, 1.82 MPa, 3.2mm, unannealed	136	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.25E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.5E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	3.26E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.51E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	137	°C	ISO 75/Af
<b>PHYSICAL <sup>(1)</sup></b>			
Moisture Absorption, (23°C/50% RH/24 hrs)	0.93	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	0.4	%	ASTM D955
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.16	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	0.35	%	ISO 294
Moisture Absorption (23°C / 50% RH)	0.12	%	ISO 62
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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