# NEMCON H PC DP120/X2

### Polycarbonate

Ovation Polymers Inc.

#### Message:

Nemcon<sup> $\infty$ </sup> H-series products are designed for use in high performance electronic assemblies where heat removal is critical to system performance. Nemcon<sup> $\infty$ </sup> H ES DP110/X3 is a natural, thermally conductive polycarbonate, combining good thermal conductivity with improved HDT and processability relative to conventional polycarbonate compounds.

Applications:

Housings for power components.

Encapsulation/housings for bobbins, actuators, and coils.

IC thermal management components, such as heat sinks, heat spreaders, or heat pipes.

LED lighting assemblies.

High Heat Resistance Thermally Conductive  Sees  Electrical Housing Electrical Parts Electrical/Electronic Applications High Temperature Applications Housings Piping  Appearance Natural Color  Nominal Value Unit Test Method Persile Gravity 1.60 9/cm³ ASTM D792 Mechanical Nominal Value Unit Test Method Parts ASTM D638 Persile Strength 2 (Break) 45.0 MPa ASTM D638 Persural Modulus 3 (50.0 mm Span) 6000 MPa ASTM D638 Persural Modulus 3 (50.0 mm Span) Fersural Strength 4 (Break, 50.0 mm Span) Fersural Strength 4 (Break, 50.0 mm Span) Nominal Value Unit Test Method Unit Test Method Defection Temperature Under Load (1.8 MPa Nominal Value Unit Test Method Unit Unit Unit Unit Unit Unit Unit Unit	General Information			
Sees   Electrical Housing   Electrical Housing   Electrical/Electronic Applications   High Temperature Applications   Housings   Piping	Features	Good Processability		
Electrical Housing Electrical Parts Electrical/Electronic Applications High Temperature Applications Housings Piping  Appearance Natural Color  Physical Nominal Value Unit Test Method Specific Gravity 1.60 Specific Gravity 1.60 MPa ASTM D792 Mechanical Nominal Value Unit Test Method Specific Gravity 4.5.0 MPa ASTM D638 Sensile Strength 2 (Break) 45.0 MPa ASTM D638 Sensile Strength 4 (Break, 50.0 mm Span) 6000 MPa ASTM D790 Selectral Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790 MPa ASTM D464 MPa		High Heat Resistance		
Electrical Housing Electrical Parts Electrical/Electronic Applications High Temperature Applications Housings Piping  Appearance Natural Color  Physical Nominal Value Unit Test Method Specific Gravity 1.60 Specific Gravity 1.60 MPa ASTM D792 Mechanical Nominal Value Unit Test Method Specific Gravity 4.5.0 MPa ASTM D638 Sensile Strength 2 (Break) 45.0 MPa ASTM D638 Sensile Strength 4 (Break, 50.0 mm Span) 6000 MPa ASTM D790 Selectral Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790 MPa ASTM D464 MPa		Thermally Conductive		
Electrical Parts Electronic Applications High Temperature Applications Housings Piping  Appearance Natural Color  Physical Nominal Value Unit Test Method Persile Modulus 1 1 00 MPa ASTM D638 Persile Strength 2 (Break) 15.00 MPa ASTM D638 Persile Strength 4 (Break, 50.0 mm Span) 15.00 MPa ASTM D790 Persilesural Strength 4 (Break, 50.0 mm Span) 15.00 MPa ASTM D790 Persilesural Strength 4 (Break, 50.0 mm Span) 15.00 MPa ASTM D790 Persilesural Strength 5 (Break) 15.00 MPa ASTM D790 Persilesural Strength 6 (Break, 50.0 mm Span) 15.00 MPa ASTM D790 Persilesural Strength 6 (Break, 50.0 mm Span) 15.00 MPa ASTM D790 Persilesural Strength 6 (Break, 50.0 mm Span) 15.00 MPa ASTM D790 Persilesural Strength 6 (Break, 50.0 mm Span) 15.00 MPa ASTM D790 Persilesural Strength 6 (Break, 50.0 mm Span) 15.00 MPa ASTM D790 Persilesural Strength 6 (Break, 50.0 mm Span) 15.00 MPa ASTM D790 Persilesural Strength 7 MPa ASTM D790 Persilesural Strength 8 MPa MPa ASTM D790 Persilesural Strength 8 MPa MPa ASTM D790 Persilesural Strength 9 MPa ASTM D790 Persilesural Streng		ŕ		
Electrical/Electronic Applications High Temperature Applications Housings Piping  Appearance Natural Color  Physical Nominal Value Unit Test Method Sepecific Gravity 1.60 MPa ASTM D792 Mechanical Nominal Value Unit Test Method MPa ASTM D638 Fensile Strength 2 (Break) 45.0 MPa ASTM D638 Fensile Strength 2 (Break) 6000 MPa ASTM D638 Felexural Modulus 3 (50.0 mm Span) 6000 MPa ASTM D638 Felexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Felexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Felexural Strength 4 (Break, 50.0 mm Span) Nominal Value Unit Test Method Notched Izod Impact (23°C) 27 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm) 130 °C ASTM D648 Fermal Conductivity - 5 2.2 W/m/K	Uses	Electrical Housing		
High Temperature Applications Housings Piping  Appearance Natural Color  Physical Nominal Value Unit Test Method Perfection Gravity 1.60 9/cm³ ASTM D792  Mechanical Nominal Value Unit Test Method Persile Modulus 1 3100 MPa ASTM D638  Persile Strength 2 (Break) 45.0 MPa ASTM D638  Persile Strength 4 (Break) Persile Strength 5 (Break) Persile Strength 6 (Break) Persile Strength 7 (Break) Persile Strength 8 (Break) Persile Strength 9 (Break) Persile St		Electrical Parts		
Housings Piping  Appearance Natural Color  Appearance Nominal Value Unit Test Method  Appearance Under Load (1.8 MPA, Unannealed, 3.20 mm)  Appearance Nominal Value Unit Test Method  Appearance Nom		Electrical/Electronic Applications		
Piping  Appearance Natural Color  Physical Nominal Value Unit Test Method  Specific Gravity 1.60 g/cm³ ASTM D792  Mechanical Nominal Value Unit Test Method  Fensile Modulus 1 3100 MPa ASTM D638  Fensile Strength 2 (Break) 45.0 MPa ASTM D638  Fensile Strength 4 (Break, 50.0 mm Span) 6000 MPa ASTM D790  Felexural Modulus 3 (50.0 mm Span) 75.0 MPa ASTM D790  Felexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790  Felexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790  Felexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790  Felexural Color Impact (23°C) 27 J/m ASTM D256  Fermal Nominal Value Unit Test Method  Pelection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm) 130 °C ASTM D648  Fehermal Conductivity 5 ASTM E1461  5 ASTM E1461  6 ASTM E1461		High Temperature Applications		
Appearance Natural Color  Physical Nominal Value Unit Test Method  Specific Gravity 1.60 g/cm³ ASTM D792  Mechanical Nominal Value Unit Test Method  Fensile Modulus 1 3100 MPa ASTM D638  Fensile Strength 2 (Break) 45.0 MPa ASTM D638  Felexural Modulus 3 (50.0 mm Span) 6000 MPa ASTM D790  Felexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790  Inspect Nominal Value Unit Test Method  Notiched Izod Impact (23°C) 27 J/m ASTM D256  Fermal Nominal Value Unit Test Method  Perfection Temperature Under Load (1.8  MPa, Unannealed, 3.20 mm) 130 °C ASTM D648  Fehermal Conductivity5  Leave ASTM D648  Leave ASTM D648  Leave ASTM D648  Leave ASTM		Housings		
Appearance Natural Color  Physical Nominal Value Unit Test Method  Specific Gravity 1.60 g/cm³ ASTM D792  Mechanical Nominal Value Unit Test Method  Fensile Modulus 1 3100 MPa ASTM D638  Fensile Strength 2 (Break) 45.0 MPa ASTM D638  Felexural Modulus 3 (50.0 mm Span) 6000 MPa ASTM D790  Felexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790  Inspect Nominal Value Unit Test Method  Notiched Izod Impact (23°C) 27 J/m ASTM D256  Fermal Nominal Value Unit Test Method  Perfection Temperature Under Load (1.8  MPa, Unannealed, 3.20 mm) 130 °C ASTM D648  Fehermal Conductivity5  Leave ASTM D648  Leave ASTM D648  Leave ASTM D648  Leave ASTM				
Nominal Value  Nominal Value  Unit  Test Method  ASTM D792  Mechanical  Nominal Value  Unit  Test Method  MPa  ASTM D638  Fensile Strength 2 (Break)  45.0  MPa  ASTM D638  Fensile Strength 4 (Break, 50.0 mm Span)  Fensile Strength 4 (Break, 50.0 mm Span)  Mominal Value  Nominal Value  Unit  Test Method  ASTM D638  ASTM D790  MPa  Mpa  ASTM D790  Mpa  ASTM D790  Mpa  Mpa  ASTM D790  Mpa  ASTM D790  Mpa  ASTM D790  Mpa  Mpa  ASTM D790  Mpa  Mpa  ASTM D790  Mpa  ASTM D648  Mpa  Mpa  Mpa  Mpa  ASTM D256  Mpa  Mpa  Mpa  ASTM D648  Mpa  Mpa  Mpa  Mpa  Mpa  ASTM D648  Mpa  Mpa  Mpa  Mpa  Mpa  Mpa  Mpa  Mp				
Specific Gravity  1.60  9/cm³  ASTM D792  Mechanical  Nominal Value  Unit  Test Method  ASTM D638  Fensile Strength 2 (Break)  45.0  MPa  ASTM D638  Flexural Modulus 3 (50.0 mm Span)  Flexural Strength 4 (Break, 50.0 mm Span)  Nominal Value  Nominal Value  Unit  Test Method  ASTM D790  MPa  ASTM D790  ASTM D648  ASTM D648  Thermal Conductivity  ASTM D648  Thermal Conductivity  ASTM D648  MPa, Unannealed, 3.20 mm)  130  C  W/m/K	Appearance	Natural Color		
Mechanical Nominal Value Unit Test Method  Fensile Modulus 1 3100 MPa ASTM D638  Fensile Strength 2 (Break) 45.0 MPa ASTM D638  Felexural Modulus 3 (50.0 mm Span) 6000 MPa ASTM D790  Felexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790  Felexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790  Felexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790  Felexural Strength 5 (Break) Nominal Value Unit Test Method  Felexural Conductivity Test Method  Felexural Conductivity Test Method  Felexural Conductivity W/m/K  Felexural Conductivity W/m/K	Physical	Nominal Value	Unit	Test Method
rensile Modulus 1 3100 MPa ASTM D638 rensile Strength 2 (Break) 45.0 MPa ASTM D638 rensile Strength 4 (Break) 6000 MPa ASTM D790 relexural Strength 4 (Break, 50.0 mm Span) 75.0 MPa ASTM D790 repact Nominal Value Unit Test Method relexural Load Impact (23°C) 27 J/m ASTM D256 remal Nominal Value Unit Test Method reflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm) 130 °C ASTM D648 reflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm) 130 Wm/K remal Conductivity ASTM E14615 2.2 W/m/K	Specific Gravity	1.60	g/cm³	ASTM D792
Fensile Strength <sup>2</sup> (Break) 45.0 MPa ASTM D638 Flexural Modulus <sup>3</sup> (50.0 mm Span) 6000 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa	Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus <sup>3</sup> (50.0 mm Span) 6000 MPa ASTM D790 Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790  Impact Nominal Value Unit Test Method  Notched Izod Impact (23°C) 27 J/m ASTM D256  Thermal Nominal Value Unit Test Method  Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm) 130 °C ASTM D648  Thermal Conductivity ASTM E1461 <sup>5</sup> 2.2 W/m/K <sup>6</sup> 6.2 W/m/K	Tensile Modulus <sup>1</sup>	3100	MPa	ASTM D638
Flexural Strength <sup>4</sup> (Break, 50.0 mm Span) 75.0 MPa ASTM D790  mpact Nominal Value Unit Test Method  Notched Izod Impact (23°C) 27 J/m ASTM D256  Thermal Nominal Value Unit Test Method  Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm) 130 °C ASTM D648  Thermal Conductivity ASTM E1461 <sup>5</sup> 2.2 W/m/K <sup>6</sup> 6.2 W/m/K	Tensile Strength <sup>2</sup> (Break)	45.0	MPa	ASTM D638
Motched Izod Impact (23°C)  27  27  Mominal Value  Unit  Test Method  ASTM D256  Thermal  Nominal Value  Unit  Test Method  Test Method  Oeflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)  Thermal Conductivity  5  2.2  W/m/K  W/m/K	Flexural Modulus <sup>3</sup> (50.0 mm Span)	6000	MPa	ASTM D790
Notiched Izod Impact (23°C)  27  Nominal Value  Unit  Test Method  Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)  Thermal Conductivity  5  2.2  W/m/K  6  6.2  W/m/K	Flexural Strength <sup>4</sup> (Break, 50.0 mm Span)	75.0	MPa	ASTM D790
Thermal Nominal Value Unit Test Method  Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm) 130 °C ASTM D648  Thermal Conductivity ASTM E1461  5 2.2 W/m/K  6 6.2 W/m/K	Impact	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)  130  °C  ASTM D648  ASTM E1461  5  2.2  W/m/K  6  6.2  W/m/K	Notched Izod Impact (23°C)	27	J/m	ASTM D256
MPa, Unannealed, 3.20 mm)       130       °C       ASTM D648         Thermal Conductivity       ASTM E1461         5       2.2       W/m/K         6       6.2       W/m/K	Thermal	Nominal Value	Unit	Test Method
Chermal Conductivity         ASTM E1461           5         2.2         W/m/K           6         6.2         W/m/K	Deflection Temperature Under Load (1.8			
<sup>5</sup> 2.2 W/m/K <sup>6</sup> 6.2 W/m/K	MPa, Unannealed, 3.20 mm)	130	°C	ASTM D648
<sup>6</sup> 6.2 W/m/K	Thermal Conductivity			ASTM E1461
5.E,,		2.2	W/m/K	
Rectrical Nominal Value Unit Test Method	6	6.2	W/m/K	
	Electrical	Nominal Value	Unit	Test Method
Surface Resistivity 8.0E+12 ohms ASTM D257	Surface Resistivity	8.0E+12	ohms	ASTM D257

NOTE	
1.	50 mm/min
2.	50 mm/min
3.	1.3 mm/min
4.	1.3 mm/min
5.	Thru-Plane
6.	In-Plane

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

