

# Chemlon® 66AH

# Teknor Apex Company (Chem Polymer) - Polyamide 66

Friday, June 30, 2017

	General Information			
Product Description				
66AH is a general purpose, hea	t stabilised unfilled injection moulding grade of nylon 66.			
General				
Material Status	Commercial: Active			
Availability	• Europe			
Additive	Heat Stabilizer			
Features	General Purpose     Heat Stabilized			
Uses	General Purpose			
Processing Method	Injection Molding			
ASTM & ISO Properties 1				

Physical         Nominal Value         Unit         Test Method           Density         1.14         g/cm²         ISO 1183           Molding Shrinkage ²         1.4 to 1.9         %         Internal Method           Water Absorption (Equilibrium, 73°F, 50% RH)         2.5         %         ISO 62           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         421000         psi         ISO 527-2           Tensile Stress         10900         psi         ISO 178           Flexural Modulus         363000         psi         ISO 178           Flexural Stress         10900         psi         ISO 178           Flexural Stress         10900         psi         ISO 178           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         No Break         ISO 179/1eU           Notched Izod Impact Strength         1.9         ft·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         2.9         ft·lb/in²         ISO 180/A           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         365 °F         ISO 75-2/B	ASTM &	ASTM & ISO Properties 1				
Molding Shrinkage²         1.4 to 1.9 %         Internal Method           Water Absorption (Equilibrium, 73°F, 50% RH)         2.5 %         ISO 62           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         421000         psi         ISO 527-2           Tensile Stress         10900         psi         ISO 527-2           Flexural Modulus         363000         psi         ISO 178           Flexural Stress         10900         psi         ISO 179/1eA           Charpy Notched Impact Strength         No Break         ISO 179/1eA           Charpy Unnotched Impact Strength         2.9 ft·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         1.9 ft·lb/in²         ISO 180/A           Heat Deflection Temperature (66 psi, Unannealed)	Physical	Nominal Value	Unit	Test Method		
Water Absorption (Equilibrium, 73°F, 50% RH)         2.5 %         ISO 62           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         421000         psi         ISO 527-2           Tensile Stress         10900         psi         ISO 527-2           Flexural Modulus         363000         psi         ISO 178           Flexural Stress         10900         psi         ISO 178           Flexural Stress         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         4.3 ft.lb/in²         ISO 179/1eA           Charpy Notched Impact Strength         8.0 Freat         ISO 179/1eA           Charpy Unnotched Impact Strength         8.0 Freat         ISO 179/1eA           Notched Izod Impact Strength         9.0 Ft.lb/in²         ISO 180/A           Unnotched Izod Impact Strength         9.0 Ft.lb/in²         ISO 180/A           Unnotched Izod Impact Strength         9.0 Ft.lb/in²         ISO 180/A           Heat Deflection Temperature (66 psi, Unannealed)         365         °F         ISO 75-2/B           Heat Deflection Temperature (264 psi, Unannealed)         9.0 Ft.lb/in²         ISO 75-2/B           Electrical         Nominal Value         Unit         Test Method <td>Density</td> <td>1.14</td> <td>g/cm³</td> <td>ISO 1183</td>	Density	1.14	g/cm³	ISO 1183		
Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         421000         psi         ISO 527-2           Tensile Stress         10900         psi         ISO 527-2           Flexural Modulus         363000         psi         ISO 178           Flexural Stress         10900         psi         ISO 178           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         4.3         ft·lb/in²         ISO 179/1eA           Charpy Unnotched Impact Strength         No Break         ISO 179/1eA           Notched Izod Impact Strength         2.9         ft·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         1.0         15 (r·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         1.0         15 (r·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         1.0         15 (r·lb/in²         ISO 180/A           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         1.0         °F         ISO 75-2/IA           Electrical         Nominal Value         Unit         Test Method           Surface Resistivity	Molding Shrinkage <sup>2</sup>	1.4 to 1.9	%	Internal Method		
Tensile Modulus         421000 psi         ISO 527-2           Tensile Stress         10900 psi         ISO 527-2           Flexural Modulus         363000 psi         ISO 178           Flexural Stress         10900 psi         ISO 178           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         4.3 ft·lb/in²         ISO 179/1eA           Charpy Unnotched Impact Strength         8.9 ft·lb/in²         ISO 179/1eU           Notched Izod Impact Strength         2.9 ft·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         17 ft·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         8.0 ft·lb/in²         ISO 180/A           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         365 °F         ISO 75-2/A           Heat Deflection Temperature (264 psi, Unannealed)         194 °F         ISO 75-2/A           Electrical         Nominal Value         Unit         Test Method           Surface Resistivity         1.0E+14 ohms cm         IEC 60093           Volume Resistivity         1.0E+16 ohms cm         IEC 60093           Electric Strength (0.118 in)         430 V/mil         IEC 60012	Water Absorption (Equilibrium, 73°F, 50% RH)	2.5	%	ISO 62		
Tensile Stress         10900         psi         ISO 527-2           Flexural Modulus         363000         psi         ISO 178           Flexural Stress         10900         psi         ISO 178           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         4.3         ft-lb/in²         ISO 179/1eA           Charpy Unnotched Impact Strength         No Break         ISO 179/1eU           Notched Izod Impact Strength         2.9         ft-lb/in²         ISO 180/A           Unnotched Izod Impact Strength         17         ft-lb/in²         ISO 180           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         365         °F         ISO 75-2/B           Heat Deflection Temperature (264 psi, Unannealed)         194         °F         ISO 75-2/A           Electrical         Nominal Value         Unit         Test Method           Surface Resistivity         1.0E+14         ohms cm         IEC 60093           Volume Resistivity         1.0E+16         ohms cm         IEC 60093           Electric Strength (0.118 in)         430         V/mil         IEC 60243-1           Comparative Tracki	Mechanical	Nominal Value	Unit	Test Method		
Flexural Modulus         363000 psi         ISO 178           Flexural Stress         10900 psi         ISO 178           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         4.3 ft-lb/in²         ISO 179/1eA           Charpy Unnotched Impact Strength         No Break         ISO 179/1eU           Notched Izod Impact Strength         2.9 ft-lb/in²         ISO 180/A           Unnotched Izod Impact Strength         17 ft-lb/in²         ISO 180           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         365 °F         ISO 75-2/B           Heat Deflection Temperature (264 psi, Unannealed)         194 °F         ISO 75-2/A           Electrical         Nominal Value         Unit         Test Method           Surface Resistivity         1.0E+14         ohms·cm         IEC 60093           Volume Resistivity         1.0E+16         ohms·cm         IEC 60093           Electric Strength (0.118 in)         430 V/mil         IEC 60243-1           Comparative Tracking Index         600 V         IEC 60112           Flammability         Nominal Value         Unit         Test Method	Tensile Modulus	421000	psi	ISO 527-2		
Flexural Stress         10900         psi         ISO 178           Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         4.3         ft·lb/in²         ISO 179/1eA           Charpy Unnotched Impact Strength         No Break         ISO 179/1eU           Notched Izod Impact Strength         2.9         ft·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         17         ft·lb/in²         ISO 180/A           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         365         °F         ISO 75-2/B           Heat Deflection Temperature (264 psi, Unannealed)         194         °F         ISO 75-2/A           Electrical         Nominal Value         Unit         Test Method           Surface Resistivity         1.0E+14         ohms·cm         IEC 60093           Volume Resistivity         1.0E+16         ohms·cm         IEC 600243-1           Comparative Tracking Index         600         V/mil         IEC 60112           Flammability         Nominal Value         Unit         Test Method           Flammability         Nominal Value         Unit         Test Method	Tensile Stress	10900	psi	ISO 527-2		
Impact         Nominal Value         Unit         Test Method           Charpy Notched Impact Strength         4.3 ft · lb/in²         ISO 179/1eA           Charpy Unnotched Impact Strength         No Break         ISO 179/1eU           Notched Izod Impact Strength         2.9 ft· lb/in²         ISO 180/A           Unnotched Izod Impact Strength         17 ft· lb/in²         ISO 180           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         365 °F         ISO 75-2/B           Heat Deflection Temperature (264 psi, Unannealed)         194 °F         ISO 75-2/A           Electrical         Nominal Value         Unit         Test Method           Surface Resistivity         1.0E+14 ohms         IEC 60093           Volume Resistivity         1.0E+16 ohms-cm         IEC 60093           Electric Strength (0.118 in)         430 V/mil         IEC 60243-1           Comparative Tracking Index         600 V         IEC 60112           Flammability         Nominal Value         Unit         Test Method	Flexural Modulus	363000	psi	ISO 178		
Charpy Notched Impact Strength         4.3 ft·lb/in²         ISO 179/1eA           Charpy Unnotched Impact Strength         No Break         ISO 179/1eU           Notched Izod Impact Strength         2.9 ft·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         17 ft·lb/in²         ISO 180           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         365 °F         ISO 75-2/B           Heat Deflection Temperature (264 psi, Unannealed)         194 °F         ISO 75-2/A           Electrical         Nominal Value         Unit         Test Method           Surface Resistivity         1.0E+14 ohms         IEC 60093           Volume Resistivity         1.0E+16 ohms·cm         IEC 60093           Electric Strength (0.118 in)         430 V/mil         IEC 60243-1           Comparative Tracking Index         600 V         IEC 60112           Flammability         Nominal Value         Unit         Test Method           Flame Rating (0.06 in, Teknor Apex test result)         HB         UL 94	Flexural Stress	10900	psi	ISO 178		
Charpy Unnotched Impact Strength         No Break         ISO 179/1eU           Notched Izod Impact Strength         2.9 ft·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         17 ft·lb/in²         ISO 180           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         365 °F         ISO 75-2/B           Heat Deflection Temperature (264 psi, Unannealed)         194 °F         ISO 75-2/A           Electrical         Nominal Value         Unit         Test Method           Surface Resistivity         1.0E+14 ohms         IEC 60093           Volume Resistivity         1.0E+16 ohms·cm         IEC 60093           Electric Strength (0.118 in)         430 V/mil         IEC 60243-1           Comparative Tracking Index         600 V         IEC 60112           Flammability         Nominal Value         Unit         Test Method           Flame Rating (0.06 in, Teknor Apex test result)         HB         UL 94	Impact	Nominal Value	Unit	Test Method		
Notched Izod Impact Strength         2.9 ft·lb/in²         ISO 180/A           Unnotched Izod Impact Strength         17 ft·lb/in²         ISO 180           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         365 °F         ISO 75-2/B           Heat Deflection Temperature (264 psi, Unannealed)         194 °F         ISO 75-2/A           Electrical         Nominal Value         Unit         Test Method           Surface Resistivity         1.0E+14 ohms         IEC 60093           Volume Resistivity         1.0E+16 ohms·cm         IEC 60093           Electric Strength (0.118 in)         430 V/mil         IEC 60243-1           Comparative Tracking Index         600 V         IEC 60112           Flammability         Nominal Value         Unit         Test Method           Flame Rating (0.06 in, Teknor Apex test result)         HB         UL 94	Charpy Notched Impact Strength	4.3	ft·lb/in²	ISO 179/1eA		
Unnotched Izod Impact Strength         17 ft·lb/in²         ISO 180           Thermal         Nominal Value         Unit         Test Method           Heat Deflection Temperature (66 psi, Unannealed)         365 °F         ISO 75-2/B           Heat Deflection Temperature (264 psi, Unannealed)         194 °F         ISO 75-2/A           Electrical         Nominal Value         Unit         Test Method           Surface Resistivity         1.0E+14 ohms         IEC 60093           Volume Resistivity         1.0E+16 ohms cm         IEC 60093           Electric Strength (0.118 in)         430 V/mil         IEC 60243-1           Comparative Tracking Index         600 V         IEC 60112           Flammability         Nominal Value         Unit         Test Method           Flame Rating (0.06 in, Teknor Apex test result)         HB         UL 94	Charpy Unnotched Impact Strength	No Break		ISO 179/1eU		
ThermalNominal ValueUnitTest MethodHeat Deflection Temperature (66 psi, Unannealed)365°FISO 75-2/BHeat Deflection Temperature (264 psi, Unannealed)194°FISO 75-2/AElectricalNominal ValueUnitTest MethodSurface Resistivity1.0E+14ohmsIEC 60093Volume Resistivity1.0E+16ohms·cmIEC 60093Electric Strength (0.118 in)430V/milIEC 60243-1Comparative Tracking Index600VIEC 60112FlammabilityNominal ValueUnitTest MethodFlame Rating (0.06 in, Teknor Apex test result)HBUL 94	Notched Izod Impact Strength	2.9	ft·lb/in²	ISO 180/A		
Heat Deflection Temperature (66 psi, Unannealed)  Heat Deflection Temperature (264 psi, Unannealed)  Electrical  Nominal Value  Unit  Test Method  Surface Resistivity  Volume Resistivity  1.0E+14 ohms IEC 60093  Volume Resistivity  1.0E+16 ohms·cm IEC 60093  Electric Strength (0.118 in)  430 V/mil IEC 60243-1  Comparative Tracking Index  Flammability  Nominal Value  Unit  Test Method  Unit  Test Method	Unnotched Izod Impact Strength	17	ft·lb/in²	ISO 180		
Heat Deflection Temperature (264 psi, Unannealed)  Flectrical  Nominal Value  Unit  Test Method  1.0E+14 ohms  IEC 60093  Volume Resistivity  1.0E+16 ohms·cm  IEC 60093  Electric Strength (0.118 in)  Comparative Tracking Index  Flammability  Nominal Value  Unit  Test Method  IEC 60093  V/mil  IEC 60243-1  Electric Strength (0.118 in)  Flammability  Nominal Value  Unit  Test Method  HB  UL 94	Thermal	Nominal Value	Unit	Test Method		
Electrical         Nominal Value         Unit         Test Method           Surface Resistivity         1.0E+14         ohms         IEC 60093           Volume Resistivity         1.0E+16         ohms·cm         IEC 60093           Electric Strength (0.118 in)         430         V/mil         IEC 60243-1           Comparative Tracking Index         600         V         IEC 60112           Flammability         Nominal Value         Unit         Test Method           Flame Rating (0.06 in, Teknor Apex test result)         HB         UL 94	Heat Deflection Temperature (66 psi, Unannealed)	365	°F	ISO 75-2/B		
Surface Resistivity         1.0E+14 ohms         IEC 60093           Volume Resistivity         1.0E+16 ohms·cm         IEC 60093           Electric Strength (0.118 in)         430 V/mil         IEC 60243-1           Comparative Tracking Index         600 V         IEC 60112           Flammability         Nominal Value         Unit         Test Method           Flame Rating (0.06 in, Teknor Apex test result)         HB         UL 94	Heat Deflection Temperature (264 psi, Unannealed)	194	°F	ISO 75-2/A		
Volume Resistivity         1.0E+16 ohms·cm         IEC 60093           Electric Strength (0.118 in)         430 V/mil         IEC 60243-1           Comparative Tracking Index         600 V         IEC 60112           Flammability         Nominal Value         Unit         Test Method           Flame Rating (0.06 in, Teknor Apex test result)         HB         UL 94	Electrical	Nominal Value	Unit	Test Method		
Electric Strength (0.118 in)  Comparative Tracking Index  600 V  IEC 60243-1  Flammability  Nominal Value  Unit  Test Method  Flame Rating (0.06 in, Teknor Apex test result)  HB  UL 94	Surface Resistivity	1.0E+14	ohms	IEC 60093		
Comparative Tracking Index600 VIEC 60112FlammabilityNominal ValueUnitTest MethodFlame Rating (0.06 in, Teknor Apex test result)HBUL 94	Volume Resistivity	1.0E+16	ohms·cm	IEC 60093		
Flammability Nominal Value Unit Test Method Flame Rating (0.06 in, Teknor Apex test result) HB UL 94	Electric Strength (0.118 in)	430	V/mil	IEC 60243-1		
Flame Rating (0.06 in, Teknor Apex test result)  HB  UL 94	Comparative Tracking Index	600	V	IEC 60112		
g (******, *****************************	Flammability	Nominal Value	Unit	Test Method		
Oxygen Index 24 % ISO 4589-2	Flame Rating (0.06 in, Teknor Apex test result)	НВ		UL 94		
	Oxygen Index	24	%	ISO 4589-2		

Processing Information				
Injection	Nominal Value Unit			
Drying Temperature	2.0 神不是順斯 021-58958519			
Drying Time	2.0. 横尔曼斯 02			
Rear Temperature	518 to 554 m			
Middle Temperature	TEKNO 518 to 554 F			
Front Temperature	teknoran 518 to 554 °F			
Processing (Melt) Temp	518 to 554 °F			
Mold Temperature	176 to 194 °F			

Revision Date: 3/20/2014

### Chemion® 66AH

## Teknor Apex Company (Chem Polymer) - Polyamide 66

Injection	Nominal Value Unit
Injection Rate	Fast
Back Pressure	Low
Screw Speed	Moderate

#### **Injection Notes**

No drying is necessary unless the material has been exposed to air for longer than three hours. The appearance of splash marks on the surface of mouldings indicates excessive moisture is present.

#### **Notes**

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> Mould shrinkage is significantly influenced by many factors including wall thickness, gating, moulding shape and processing conditions. The range values given are determined from specimen bar mouldings of 1.5mm to 4mm wall thickness. They are provided as a guide for comparison purposes only and no guarantee should be inferred from their inclusion. (Specimens measured in the dry state, 24 hours after moulding).

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