

## STAMAX<sup>™</sup> 30YH515

## FR PP LGF REINFORCED

## **DESCRIPTION**

STAMAX<sup>TM</sup> 30YH515 is a high flow, halogen free flame redardant, copolymer reinforced with 30% long glass fiber, specially developed for electrical & electronic injection molded applications. This material has been designed to combine a good performance profile with good processing.

SABIC STAMAX™ 30YH515 is a designated injection molded grade for electrical applications. STAMAX™ 30YH515 should be dried at 100°C for 2 hours before the injection molding.

UL Yellow Card: E111275

## TYPICAL PROPERTY VALUES

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Glass fibre content90%803451MECHANICAL PROPERTIS <sup>(1)</sup> Tensite modulusTensite modulusTensite modulusTensite modulusTensite forgation at breakTensite forgation at breakTensite modulusTensite Modulus </td <td>POLYMER PROPERTIES</td> <td></td> <td></td> <td></td>	POLYMER PROPERTIES			
MECHANICAL PROPERTIS <sup>(1)</sup> Tensile modulusat 20 °C7600MPa50 527/1Aat 80 °C800MPa50 527/1AAdot on the set of t	Density	1270	kg/m <sup>3</sup>	ISO 1183
Fasile modulasat.83 °C7600MPa80527/1Aat.83 °C6400MPa80527/1Afat.34 °C800MPa80527/1Afat.35 °C8050527/1A50fat.34 °C8080527/1A50fat.35 °C808080178at.84 °C900MPa80178at.85 °C60MPa80178fat.36 °C80MPa80178at.84 °C60MPa80178at.85 °C80MPa80178at.84 °C80MPa80178at.36 °C80MPa80178at.36 °C81MPa8017914Aat.36 °C81MPa8017914Aat.37 °C81MPa8017914Aat.36 °C81MPa8017914Aat.37 °C81MPa8017914Aat.36 °C81MPa8017914Aat.37 °C81MPa <td>Glass fibre content</td> <td>30</td> <td>%</td> <td>ISO 3451</td>	Glass fibre content	30	%	ISO 3451
at 23 °CF00MPaSD 5271Aat 80 °C4600MPaSD 5271ATesile elongation at breakSD 5271Aat 32 °C50 5271ASD 5271Aflexural ModulusSD 5271Aat 23 °C600MPaSD 5271Aat 80 °C600MPaSD 178at 80 °C600MPaSD 178at 80 °C600MPaSD 178at 80 °C130MPaSD 178at 80 °C130MPaSD 1791Aat 80 °C130MPaSD 1791Aat 80 °C130MPaSD 1791Aat 30 °C130M/m2SD 1791Aat 30 °C130M/m2SD 1791Aat 30 °C130M/m2SD 1791Aat 30 °C150M/m2SD 1791Aat 30 °C55SU MSD 1791Aat 30 °C55MSD 1791Aat 30 °C55MSD 1791Aat 1.80 Ma (HDT/A)50SD 1791Aat 1.80 Ma (HDT/A)SD 1791ASD 1791Aat 1.80 Ma (HDT	MECHANICAL PROPERTIES (1)			
at 80°C4600MPa50 527 JATensile elongation at break55555at 23°C2.5%5555Flexural Modulus7000MPa50 17855at 80°C4000MPa50 178557at 80°C60MPa50 1785777at 23°C10MPa50 1787777at 23°C10MPa50 1787777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777777 <th< td=""><td>Tensile modulus</td><td></td><td></td><td></td></th<>	Tensile modulus			
Tensile elongation at break           at 23 °C         %         IS0 527 / IA           Flexural Modulus         -         -           at 23 °C         700         MPa         IS0 178           at 80 °C         4600         MPa         IS0 178           at 80 °C         MPa         IS0 178           at 30 °C         MPa         IS0 179 / IAA           at 30 °C         IS0         MPa         IS0 179 / IAA           at 30 °C         IS0 179 / IAA         IS0 179 / IAA           at 30 °C         IS0 179 / IAA         IS0 179 / IAA           at 30 °C         IS0 179 / IAA         IS0 179 / IAA           at 30 °C         IS0 IS0 / IS0	at 23 °C	7600	MPa	ISO 527/1A
at 23 °C5555555Hexural Modulus7000MPa150 178at 23 °C4600MPa150 178at 80 °CMPa150 178Hexural strength60MPa150 178at 30 °C60MPa150 178At 23 °C15MPa150 179 14Aat 30 °C13M/m2150 179 14Aat 30 °C13M/m2150 179 14Aat 30 °C44MPa150 179 14Aat 30 °C45M/m2150 179 14Aat 30 °C15MPa150 179 14Uat 30 °C50 179 14U150 179 14Uat 30 °C50 179 14U150 179 14Uat 30 °C15MPa150 179 14Uat 30 °C15°C150 179 14Uat 1.80 MPa (HDT/A)15°C150 179 14Uat 1.80 MPa (HDT/A)15°C150 179 14Uat 1.80 MPa (HDT/A)15°C150 179 14Uat 1.80 MPa (HDT/A)15VVat 1.80 MPa (HDT/A)15VVat 1.80 MPa (HDT/A)15MmUat 1.80 MPa (HDT/A)15MmU	at 80 °C	4600	MPa	ISO 527/1A
Flexural Modulusat 23 °C700MPa150 178at 80 °C4600MPa150 178Flexural strength130MPa50 178at 23 °C60MPa50 178at 30 °C5050 178100Chary Impact Strength Notched13MPa50 179/16Aat 23 °C15Kl/m²50 179/16Aat 23 °C13Kl/m²50 179/16Aat 23 °C13Kl/m²50 179/16Aat 23 °C45Kl/m²50 179/16Aat 23 °C45Kl/m²50 179/16Uat 23 °C45Kl/m²50 179/16Uat 23 °C55Kl/m²50 179/16Uat 23 °C15m/m²50 179/16Uat 23 °C15m/m²50 179/16Uat 30 °C55m/m²50 179/16Ubat deflection temperaturem/m²50 179/16Ucto 100 °C50m/m²50 13592cto 100 °C60VEc60112ctored for	Tensile elongation at break			
at 23 °C700MPa50 178at 80 °CA600MPa50 178facural strength130MPa150 178at 23 °C60MPa50 178at 23 °C15Kl/m²50 179 14Aat 30 °CKl/m²50 179 14A60 179 14Aat 30 °C13Kl/m²50 179 14Aat 30 °CKl/m²50 179 14Bat 30 °CKl/m²50 179 14BHERKL PROPERTIESVVHERKL ROPERTIESVS0 179 14Bcong cong cong cong cong cong cong cong	at 23 °C	2.5	%	ISO 527/1A
at 80 °CMPaSD 178Flexural strengthI30MPaSD 178at 23 °C60MPaSD 178Charpy Impact Strength NotchedISD 178at 23 °C15K/lm²SD 179/1AAat 23 °C13K/lm²SD 179/1AAat 30 °C13K/lm²SD 179/1AAat 30 °CK/lm²SD 179/1AAat 30 °C44K/lm²SD 179/1eUat 30 °CK/lm²SD 179/1eUat 30 °CSD 179/1eUSD 179/1eUat 30 °CSD 179/1eUSD 179/1eUat 1.80 MPa (HDT/A)SD 50°C NO SD 179/1eUCoeff of Incent thermal expansion°C NO SD 159/2Coeff of Coeff CoeffSD 1359.2FLAMABILTY PROPERTIESISO 1359.2Comparative Tracking Index60VIEC 60112Lives thickness for VO15mm<	Flexural Modulus			
Haxural strength         Instant strength           at 23 °C         50 78           at 80 °C         MPa         50 178           at 80 °C         MPa         50 178           charpy Impact Strength Notched         MPa         50 179 1eA           at 23 °C         15         M/m <sup>2</sup> 50 179 1eA           at 23 °C         13         MPa         50 179 1eA           at 23 °C         45         Kl/m <sup>2</sup> 50 179 1eU           at 30 °C         44         Kl/m <sup>2</sup> 50 179 1eU           at .80 MPa (HDT/A)         44         Kl/m <sup>2</sup> 50 179 1eU           at 1.80 MPa (HDT/A)         155         °C         S0 75 /A           coeft. of linear thermal expansion         v         Vm/m/mK         S0 1359-2           FLAMABILITY PROPERTIES         Vm/m/mK         S0 1359-2           Comparative Tracking Index         600         V         IcC 60112           Luset thickness for V0         1.5         mm         UL94	at 23 °C	7000	MPa	ISO 178
at 23 °CI30MPaIS0 178at 80 °C60MPaIS0 178Charpy Inpact Strength Notchedis0 179Is0 179/1eAat 23 °C13Kl/m²IS0 179/1eACharpy Inpact unnotchedis0 179/1eAKl/m²IS0 179/1eAat 23 °C45Kl/m²IS0 179/1eUat 30 °C44Kl/m²IS0 179/1eUat 30 °CKl/m²IS0 179/1eUIS0 179/1eUat 30 °C15°CIS0 179/1eUat 30 °CIS0 179/1eUIS0 179/1eUat 30 °CIS0 179/1eUIS0 179/1eUat 1.80 MPa (HDT/A)155°CIS0 75/ACoeff. of linear thermal expansion°CIS0 1359-2FAMAMBILITY PROFERTIESIS0 1359-2IS0 1359-2FAMAMBILITY PROFERTIESIS0 1359-2IS0 1359-2Lowest thickness for V01.5mmUL94GWFIIS0 IS0 IS0 IS0 IS0 IS0 IS0 IS0 IS0 IS0	at 80 °C	4600	MPa	ISO 178
at 80 °C         B0         MPa         B15 178           Charpy Impact Strength Notched         J5         J16         J179 118           at 23 °C         J50 179 118         J179 118           Charpy Impact unnotched         J179 118         J179 118           at 23 °C         J50 179 118         J179 118           at 23 °C         J50 179 118         J179 118           THERMAL PROPERTIES         J179 118         J179 118           Heat deflection temperature         J179 118         J179 118           Good Coff. of Linear thermal expansion         °C °C °C °C 718 100 °C °C 718         J179 118           Granger thermal expansion         J170 °C 718 718         J179 718 718           FLAMMABILITY PROPERTIES         J170 °C 718 718         J179 718 718           Lowest thickness for V0         G00         V 0         J179 718 718           Luse         J15 °C 718 718         J179 718 718           Luse         J180 718 718         J180 718 718           Luse         J180 718 718 718         J180 718 718           Lu	Flexural strength			
Charpy Impact Strength Notched           at 23 °C         15         kl/m²         Is0 179/1eA           at -30 °C         18/m²         Is0 179/1eA           Charpy Impact unnotched         kl/m²         Is0 179/1eU           at 23 °C         45         kl/m²         Is0 179/1eU           at -30 °C         kl/m²         Is0 179/1eU         at -30 °C           at -30 °C         44         kl/m²         Is0 179/1eU           THERMAL PROPERTIES          Sio 179/1eU           Het Adeflection temperature          Sio 75/A           for fulfiear thermal expansion         °C and sio 75/A         Sio 75/A           FLAMMABILITY PROPERTIES          Sio 1359-2           FLAMMABILITY PROPERTIES          Sio 1359-2           Gomparative Tracking Index         600         V         IEC 60112           Lug4          Sio 75/A         Sio 75/A           Lug4          Sio 75/A         Sio 75/A	at 23 °C	130	MPa	ISO 178
at 23 °C         l5         kl/m²         l50 179/1eA           at -30 °C         13         kl/m²         l50 179/1eA           Charpy impact unnotched           sto 179/1eA           at 23 °C         45         kl/m²         l50 179/1eU           at -30 °C         44         kl/m²         l50 179/1eU           THERMAL PROPERTIES          i50 179/1eU         i50 179/1eU           Hat 1.80 MPa (HDT/A)         155         °C         l50 75/A           Coeff. of linear thermal expansion          v         sto 1359-2           FLAMMABILITY PROPERTIES          v         sto 1359-2           FLAMMABILITY PROPERTIES          v         sto 112           Gueget thickness for V0         600         v         w         sto 112           Lowest thickness for V0         1.5         mm         UL94         sto 12	at 80 °C	60	MPa	ISO 178
at -30 °C         13         kl /m²         ISO 179/1eA           Charpy impact unnotched         Kl /m²         ISO 179/1eU           at 23 °C         45         Kl /m²         ISO 179/1eU           at -30 °C         Kl /m²         ISO 179/1eU         ISO 179/1eU           THERMAL PROPERTIES         Kl /m²         ISO 179/1eU         ISO 179/1eU           Heat deflection temperature         ISO 179/1eU         ISO 179/1eU         ISO 179/1eU           at 1.80 MPa (HDT/A)         155         °C         ISO 75/A         ISO 179/1eU           Coeff. of linear thermal expansion         °C         ISO 150 °C         ISO 1359-2         ISO 1359-2           FLAMMABILITY PROPERTIES         Imm/mK         ISO 1359-2         IEC 60112         IEC 60112           U194         ILS         Name         ILS 6001         Name         ILS 6001         ILS 6001           GWFI         ILS         Imm         ILS 6001         Imm         ILS 6001         ILS 6001	Charpy Impact Strength Notched			
Charpy impact unnotched         if the method is a set of	at 23 °C	15	kJ/m²	ISO 179/1eA
at 23 °C         kJ/m²         SO 179/1eU           at -30 °C         kJ/m²         SO 179/1eU           tt-30 °C         kJ/m²         SO 179/1eU           THERMAL PROPERTIES         -         -           Heat deflection temperature         -         -           at 1.80 MPa (HDT/A)         155         °C co         SO 175/A           Goeff. of linear thermal expansion         -         -         -           -30 °C to 100 °C         55         μm/mK         SO 1359-2           FLAMMABILITY PROPERTIES         -         -         -           Comparative Tracking Index         600         V         IC 60112           Lues         1.5         mm         UL 94           GWFI         -         -         -	at -30 °C	13	kJ/m²	ISO 179/1eA
at -30 °C         44         kl/m²         ISO 179/1eU           THERMAL PROPERTIES         F         F         F           Heat deflection temperature         S0 75/A         S0 75/A           at 1.80 MPa (HDT/A)         155         °C and so 75/A           Coeff. of linear thermal expansion         ym/mK         ISO 11359-2           F-AMMABILITY PROPERTIES         U         F           Comparative Tracking Index         600         V         IEC 60112           Lowest thickness for V0         1.5         mm         UL 94	Charpy impact unnotched			
THERMAL PROPERTIES           Heat deflection temperature           at 1.80 MPa (HDT/A)         155         °C         ISO 75/A           Coeff. of linear thermal expansion         -         -         -           -30 °C to 100 °C         55         µm/mK         ISO 11359-2           FLAMMABILITY PROPERTIES         -         -         -           Comparative Tracking Index         600         V         IEC 60112           UL94         -         -         -           Cowest thickness for V0         1.5         mm         UL 94	at 23 °C	45	kJ/m²	ISO 179/1eU
Heat deflection temperature           at 1.80 MPa (HDT/A)         155         °C on ISO 75/A           Coeff. of linear thermal expansion	at -30 °C	44	kJ/m²	ISO 179/1eU
at 1.80 MPa (HDT/A)         155         °C         ISO 75/A           Coeff. of linear thermal expansion              -30 °C to 100 °C         55         µm/mK         ISO 11359-2           FLAMMABILITY PROPERTIES              Comparative Tracking Index         600         V         IEC 60112           UL94         1.5         mm         UL 94           GWFI	THERMAL PROPERTIES			
Coeff. of linear thermal expansion         μm/mK         ISO 11359-2           -30 °C to 100 °C         55         μm/mK         ISO 11359-2           FLAMMABILITY PROPERTIES         600         V         IEC 60112           Comparative Tracking Index         600         V         IEC 60112           UL94         1.5         mm         UL 94           GWFI         50         50         1.5         mm	Heat deflection temperature			
-30 °C to 100 °C         55         μm/mK         ISO 11359-2           FLAMMABILITY PROPERTIES              Comparative Tracking Index         600         V         IEC 60112           UL94               Lowest thickness for V0         1.5         mm         UL 94           GWFI	at 1.80 MPa (HDT/A)	155	°C	ISO 75/A
FLAMMABILITY PROPERTIES       V       IEC 60112         Comparative Tracking Index       600       V       IEC 60112         UL94       IEC 60112       IEC 60112       IEC 60112         Cowest thickness for V0       1.5       mm       UL 94         GWFI       IEC 60112       IEC 60112       IEC 60112	Coeff. of linear thermal expansion			
Comparative Tracking Index         600         V         IEC 60112           UL94               Lowest thickness for V0         1.5         mm         UL 94           GWFI	-30 °C to 100 °C	55	µm/mK	ISO 11359-2
UL94       Lowest thickness for VO     1.5       GWFI	FLAMMABILITY PROPERTIES			
Lowest thickness for VO 1.5 mm UL 94 GWFI	Comparative Tracking Index	600	V	IEC 60112
GWFI	UL94			
	Lowest thickness for V0	1.5	mm	UL 94
at 0.8mm 750 °C IEC 60695-2-12	GWFI			
	at 0.8mm	750	°C	IEC 60695-2-12







PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
at 1.6mm	960	°C	IEC 60695-2-12

(1) All measurements on injection molded samples.



