

# Grivory HT2V-5H PA6T/66-GF50

# EMS-GRIVORY | a unit of EMS-CHEMIE AG

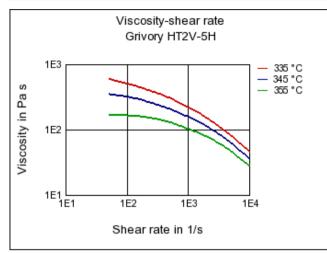
Product Texts

Product-nomenclature acc. ISO 1874: PA6T/66, MH, 14-190, GF50

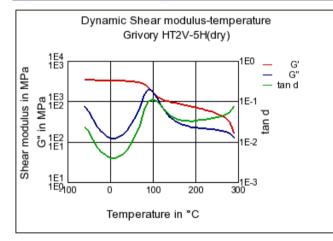
Tensile Modulus       17500 / 17000       MPa       ISO 527-1/-2         Stress at break       250 / 215       MPa       ISO 527-1/-2         Strain at break       21/2       %       ISO 527-1/-2         Charpy impact strength (+23°C)       75 / 75       KJ/m²       ISO 179/1eU         Charpy notched impact strength (+23°C)       11 / 11       KJ/m²       ISO 179/1eU         Charpy notched impact strength (+23°C)       11 / 11       KJ/m²       ISO 179/1eU         Charpy notched impact strength (-30°C)       11 / 11       KJ/m²       ISO 179/1eU         Charpy notched impact strength (-30°C)       11 / 11       KJ/m²       ISO 179/1eU         Charpy notched impact strength (-30°C)       11 / 11       KJ/m²       ISO 179/1eU         Charpy notched impact strength (-30°C)       11 / 11       KJ/m²       ISO 179/1eA         Mechanical properties       dry / cond       Unit       Test Standard         Ball indentation hardness       325 / 325       MPa       ISO 2039-1         Temp. of deflection under load (1.80 MPa)       280 / -       °C       ISO 75-1/-2         Temp. of deflection under load (8.00 MPa)       230 / -       °C       ISO 75-1/-2         Coeff. of linear therm, expansion (paralle)       10 / -       E-6/K       I	1 A01/00, Mill, 14-190, OI 50			
Stress at break         250/215         MPa         ISO 527-1/-2           Strain at break         2 / 2         %         ISO 527-1/-2           Charpy impact strength (+23°C)         75/175         k.J/m²         ISO 179/1eU           Charpy impact strength (+23°C)         11/11         k.J/m²         ISO 179/1eU           Charpy inpact strength (+23°C)         11/11         k.J/m²         ISO 179/1eU           Charpy notched impact strength (+23°C)         11/11         k.J/m²         ISO 179/1eA           Mechanical properties (TPE)         dry / cond         Unit         Test Standard           Ball indentation hardness         325 / 325         MPa         ISO 2039-1           Thermal properties         dry / cond         Unit         Test Standard           Melting temperature (10°C/min)         310 /-         °C         ISO 173/1-3           Temp. of deflection under load (0.00 MPa)         280 /-         °C         ISO 75-1/-2           Coeff. of linear therm. expansion (parallel)         10 /-         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (parallel)         10 /-         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (parallel)         10 /-         E-6/K         ISO 11359-1/-2           Coe	Mechanical properties	dry / cond	Unit	Test Standard
Strain at break         2/2         %         ISO 527-1/-2           Charpy impact strength (+23°C)         75 / 75         kJ/m²         ISO 179/1eU           Charpy impact strength (+23°C)         60 / 60         kJ/m²         ISO 179/1eU           Charpy inpact strength (+23°C)         11 / 11         kJ/m²         ISO 179/1eU           Charpy notched impact strength (+23°C)         11 / 11         kJ/m²         ISO 179/1eU           Charpy notched impact strength (-30°C)         11 / 10         kJ/m²         ISO 179/1eU           Charpy notched impact strength (-30°C)         11 / 10         kJ/m²         ISO 179/1eU           Meting temperature (1°C/min)         310 / -         K         ISO 179/1eA           Thermal properties         dry / cond         Unit         Test Standard           Melting temperature (10°C/min)         310 / -         *C         ISO 17357-1/-2           Temp. of deflection under load (1.80 MPa)         280 / -         *C         ISO 75-1/-2           Coeff. of linear therm. expansion (parallel)         10 / -         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (parallel)         10 / -         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (normal)         55/1 -         E-6/K         ISO 11359-1/-2 </td <td>Tensile Modulus</td> <td>17500 / 17000</td> <td>MPa</td> <td>ISO 527-1/-2</td>	Tensile Modulus	17500 / 17000	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)         75 / 75         k.//m²         ISO 179/1eU           Charpy impact strength (-30°C)         60 / 60         k.//m²         ISO 179/1eU           Charpy notched impact strength (+23°C)         11 / 11         k.//m²         ISO 179/1eA           Charpy notched impact strength (-30°C)         11 / 10         k.//m²         ISO 179/1eA           Mechanical properties (TPE)         dry / cond         Unit         Test Standard           Ball indentation hardness         325 / 325         MPa         ISO 2039-1           Thermal properties         dry / cond         Unit         Test Standard           Meling temperature (10°C/min)         310 / -         °C         ISO 11357-1/-3           Temp. of deflection under load (8.00 MPa)         280 / -         °C         ISO 75-1/-2           Temp. of deflection under load (8.00 MPa)         230 / -         °C         ISO 75-1/-2           Coeff. of linear therm. expansion (parallel)         10 / -         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (normal)         55 / -         E-6/K         ISO 11359-1/-2           Deriver therm. expansion (normal)         55 / -         E-6/K         ISO 11359-1/-2           Deriver therm. expansion (normal)         55 / -         E-6/K	Stress at break	250 / 215	MPa	ISO 527-1/-2
Charpy impact strength (-30°C)         60 / 60         k.//m²         ISO 179/1eU           Charpy notched impact strength (-30°C)         11 / 11         k.//m²         ISO 179/1eA           Charpy notched impact strength (-30°C)         11 / 10         k.//m²         ISO 179/1eA           Mechanical properties (TPE)         dry / cond         Unit         Test Standard           Ball indentation hardness         325 / 325         MPa         ISO 2039-1           Thermal properties         dry / cond         Unit         Test Standard           Meling temperature (10°C/min)         310 / -         °C         ISO 75-1/-2           Temp. of deflection under load (1.80 MPa)         280 / -         °C         ISO 75-1/-2           Temp. of deflection under load (8.00 MPa)         230 / -         °C         ISO 1739/1-2           Coeff. of linear therm. expansion (parallel)         10 / -         E-6/K         ISO 11359-1/-2           Derming Behav. at thickness h         HB / -         class         IEC 60095-11-10           Thickness tested         0.8 / -         mm         IEC 60095-11-10           Max. usage temperature (long term)         140         °C         ISO 2578           Max. usage temperature (short term)         270         °C         EMS <td< td=""><td>Strain at break</td><td>2/2</td><td>%</td><td>ISO 527-1/-2</td></td<>	Strain at break	2/2	%	ISO 527-1/-2
Charpy notched impact strength (+23°C)         11 / 11         kJ/m²         ISO 179/1eA           Charpy notched impact strength (-30°C)         11 / 10         kJ/m²         ISO 179/1eA           Mechanical properties (TPE)         dry / cond         Unit         Test Standard           Ball indentation hardness         325 / 325         MPa         ISO 2039-1           Thermal properties         dry / cond         Unit         Test Standard           Melting temperature (10°C/min)         310 /-         °C         ISO 179/1eA           Temp. of deflection under load (1.80 MPa)         280 /-         °C         ISO 75-1/-2           Coeff. of linear therm. expansion (parallel)         10 /-         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (normal)         55 /-         E-6/K         ISO 11359-1/-2           Burning Behav. at thickness h         HB /-         class         IEC 60695-11-10           Thickness tested         0.8 /-         mm         IEC 60695-11-10           Max. usage temperature (long term)         140         °C         ISO 2578           Max. usage temperature (short term)         270         °C         EMS           Electrical properties         dry / cond         Unit         Test Standard           Volume	Charpy impact strength (+23°C)	75 / 75	kJ/m²	ISO 179/1eU
Charpy notched impact strength (-30°C)         11 / 10         kJ/m²         ISO 179/1eA           Mechanical properties (TPE)         dry / cond         Unit         Test Standard           Ball indentation hardness         325 / 325         MPa         ISO 2039-1           Thermal properties         dry / cond         Unit         Test Standard           Meling temperature (10°C/min)         310 / -         °C         ISO 75-1/-3           Temp. of deflection under load (1.80 MPa)         280 / -         °C         ISO 75-1/-2           Temp. of deflection under load (8.00 MPa)         230 / -         °C         ISO 75-1/-2           Coeff. of linear therm. expansion (parallel)         10 / -         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (normal)         55 / -         E-6/K         ISO 11359-1/-2           Burning Behav. at thickness h         HB / -         class         IEC 60695-11-10           Thickness tested         0.8 / -         mm         IEC 60695-11-10           Thickness tested         0.8 / -         mm         IEC 60695-11-10           Thickness tested         0.8 / -         mm         IEC 600693           Surface resistivity         1E10 / 1E10         Ohm 'm         IEC 60093           Surface resistivity<	Charpy impact strength (-30°C)	60 / 60	kJ/m²	ISO 179/1eU
Mechanical properties (TPE)       dry / cond       Unit       Test Standard         Ball indentation hardness       325 / 325       MPa       ISO 2039-1         Thermal properties         dry / cond       Unit       Test Standard         Melting temperature (10°C/min)       310 / -       °C       ISO 11357-1/-3         Temp. of deflection under load (8.00 MPa)       280 / -       °C       ISO 75-1/-2         Coeff. of linear therm. expansion (parallel)       10 / -       E-6/K       ISO 11359-1/-2         Coeff. of linear therm. expansion (parallel)       10 / -       E-6/K       ISO 11359-1/-2         Burning Behav. at thickness h       HB / -       class       IEC 60695-11-10         Thickness tested       0.8 / -       mm       IEC 60695-11-10         Max. usage temperature (long term)       140       °C       ISO 2578         Max. usage temperature (short term)       270       °C       EMS         Electrical properties         Volume resistivity       -       IE12       Ohm IEC 60093         Surface resistivity       - / 1E12       Ohm       IEC 60033         Surface resistivity       - / 1E12       Ohm       IEC 60033         Comparative tracking index       - / 600	Charpy notched impact strength (+23°C)	11 / 11	kJ/m²	ISO 179/1eA
Ball indentation hardness         325 / 325         MPa         ISO 2039-1           Thermal properties         dry / cond         Unit         Test Standard           Melting temperature (10°C/min)         310 /-         °C         ISO 11357-1/-3           Temp. of deflection under load (1.80 MPa)         280 /-         °C         ISO 75-1/-2           Temp. of deflection under load (8.00 MPa)         230 /-         °C         ISO 75-1/-2           Coeff. of linear therm. expansion (parallel)         10 /-         E-6/K         ISO 11359-1/-2           Coeff. of inear therm. expansion (normal)         55 /-         E-6/K         ISO 11359-1/-2           Burning Behav. at thickness h         HB /-         class         IEC 60695-11-10           Thickness tested         0.8 /-         mm         IEC 60695-11-10           Max. usage temperature (long term)         140         °C         ISO 2578           Max. usage temperature (short term)         270         °C         EMS           Electrical properties         dry / cond         Unit         Test Standard           Volume resistivity         -1/1E10         Ohm         IEC 60093           Electric strength         38 / 38         kV/mm         IEC 60033           Comparative tracking index         -/	Charpy notched impact strength (-30°C)	11 / 10	kJ/m²	ISO 179/1eA
Ball indentation hardness         325 / 325         MPa         ISO 2039-1           Thermal properties         dry / cond         Unit         Test Standard           Melting temperature (10°C/min)         310 /-         °C         ISO 11357-1/-3           Temp. of deflection under load (1.80 MPa)         280 /-         °C         ISO 75-1/-2           Temp. of deflection under load (8.00 MPa)         230 /-         °C         ISO 75-1/-2           Coeff. of linear therm. expansion (parallel)         10 /-         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (normal)         55 /-         E-6/K         ISO 11359-1/-2           Burning Behav. at thickness h         HB /-         class         IEC 60695-11-10           Thickness tested         0.8 /-         mm         IEC 60695-11-10           Max. usage temperature (long term)         140         °C         ISO 2578           Max. usage temperature (short term)         270         °C         EMS           Electrical properties         dry / cond         Unit         Test Standard           Volume resistivity         -1/1E10         Ohm */m         IEC 60093           Electric strength         38 / 38         kV/mm         IEC 60033           Comparative tracking index         <	Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)         310 / -         °C         ISO 11357-1/-3           Temp. of deflection under load (1.80 MPa)         280 / -         °C         ISO 75-1/-2           Temp. of deflection under load (8.00 MPa)         230 / -         °C         ISO 75-1/-2           Coeff. of linear therm. expansion (parallel)         10 / -         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (normal)         55 / -         E-6/K         ISO 11359-1/-2           Burning Behav. at thickness h         HB / -         class         IEC 60695-11-10           Thickness tested         0.8 / -         mm         IEC 60695-11-10           Max. usage temperature (long term)         140         °C         ISO 2578           Max. usage temperature (short term)         270         °C         EMS           Electrical properties           Volume resistivity         1E10 / 1E10         Ohm*m         IEC 60093           Surface resistivity         - / 1E12         Ohm         IEC 60093           Surface resistivity         - / 1E12         Ohm         IEC 600243-1           Comparative tracking index         - / 600         -         IEC 60112           Other properties         dry / cond         Unit         Test Standard			MPa	
Melting temperature (10°C/min)         310 / -         °C         ISO 11357-1/-3           Temp. of deflection under load (1.80 MPa)         280 / -         °C         ISO 75-1/-2           Temp. of deflection under load (8.00 MPa)         230 / -         °C         ISO 75-1/-2           Coeff. of linear therm. expansion (parallel)         10 / -         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (normal)         55 / -         E-6/K         ISO 11359-1/-2           Burning Behav. at thickness h         HB / -         class         IEC 60695-11-10           Thickness tested         0.8 / -         mm         IEC 60695-11-10           Max. usage temperature (long term)         140         °C         ISO 2578           Max. usage temperature (short term)         270         °C         EMS           Electrical properties           Volume resistivity         1E10 / 1E10         Ohm*m         IEC 60093           Surface resistivity         - / 1E12         Ohm         IEC 60093           Surface resistivity         - / 1E12         Ohm         IEC 600243-1           Comparative tracking index         - / 600         -         IEC 60112           Other properties         dry / cond         Unit         Test Standard	Thormal properties	dry/oond	Unit	Toot Standard
Temp. of deflection under load (1.80 MPa)       280 / -       °C       ISO 75-1/-2         Temp. of deflection under load (8.00 MPa)       230 / -       °C       ISO 75-1/-2         Coeff. of linear therm. expansion (parallel)       10 / -       E-6/K       ISO 11359-1/-2         Coeff. of linear therm. expansion (normal)       55 / -       E-6/K       ISO 11359-1/-2         Burning Behav. at thickness h       HB / -       class       IEC 60695-11-10         Thickness tested       0.8 / -       mm       IEC 60695-11-10         Max. usage temperature (long term)       140       °C       ISO 2578         Max. usage temperature (short term)       270       °C       EMS         Volume resistivity         Surface resistivity       1E10 / 1E10       Ohm*m       IEC 60093         Surface resistivity       -/1E12       Ohm       IEC 60093         Surface resistivity       -/1600       -       IEC 60112         Other properties       dry / cond       Unit       Test Standard         Water absorption       3.5 / -       %       Sim. to ISO 62         Humidity absorption       1.2 / -       %       Sim. to ISO 62         Density       1620 / -       kg/m³       ISO 1183 <td></td> <td></td> <td></td> <td></td>				
Temp. of deflection under load (8.00 MPa)       230 / -       °C       ISO 75-1/-2         Coeff. of linear therm. expansion (parallel)       10 / -       E-6/K       ISO 11359-1/-2         Coeff. of linear therm. expansion (normal)       55 / -       E-6/K       ISO 11359-1/-2         Burning Behav. at thickness h       HB / -       class       IEC 60095-11-10         Thickness tested       0.8 / -       mm       IEC 60095-11-10         Max. usage temperature (long term)       140       °C       ISO 2578         Max. usage temperature (short term)       270       °C       EMS         Electrical properties         Volume resistivity       -/1E10 / 1E10       Ohm *m       IEC 60093         Surface resistivity       -/1E12       Ohm       IEC 60093         Surface resistivity       -/1600       -       IEC 60112         Other properties       dry / cond       Unit       Test Standard         Water absorption       3.5 / -       %       Sim. to ISO 62         Humidity absorption       1.2 / -       %       Sim. to ISO 62         Density       1620 / -       kg/m³       ISO 1183         Rheo/Phys properties       dry / cond       Unit       Test Standard         Moldi				
Coeff. of linear therm. expansion (parallel)         10 / -         E-6/K         ISO 11359-1/-2           Coeff. of linear therm. expansion (normal)         55 / -         E-6/K         ISO 11359-1/-2           Burning Behav. at thickness h         HB / -         class         IEC 60695-11-10           Thickness tested         0.8 / -         mm         IEC 60695-11-10           Max. usage temperature (long term)         140         °C         ISO 2578           Max. usage temperature (short term)         270         °C         EMS           Electrical properties         dry / cond         Unit         Test Standard           Volume resistivity         1E10 / 1E10         Ohm*m         IEC 60093           Surface resistivity         -/ 1E12         Ohm         IEC 60093           Surface resistivity         -/ 600         -         IEC 60093           Comparative tracking index         -/ 600         -         IEC 60112           Other properties         dry / cond         Unit         Test Standard           Water absorption         3.5 / -         %         Sim. to ISO 62           Humidity absorption         1.2 / -         %         Sim. to ISO 62           Density         1620 / -         kg/m³         ISO 1183 </td <td></td> <td></td> <td></td> <td></td>				
Coeff. of linear therm. expansion (normal)         55 / -         E-6/K         ISO 11359-1/-2           Burning Behav. at thickness h         HB / -         class         IEC 60695-11-10           Thickness tested         0.8 / -         mm         IEC 60695-11-10           Max. usage temperature (long term)         140         °C         ISO 2578           Max. usage temperature (short term)         270         °C         EMS           Electrical properties           Volume resistivity         1E10 / 1E10         Ohm IEC 60093           Surface resistivity         - / 1E12         Ohm IEC 60093           Surface resistivity         - / 1E12         Ohm IEC 60093           Electric strength         38 / 38         kV/mm           Comparative tracking index         - / 600         -           IEC 60112           Other properties           dry / cond         Unit         Test Standard           Water absorption         1.2 / -         %         Sim. to ISO 62           Humidity absorption         1.2 / -         %         Sim. to ISO 62           Density         1620 / -         kg/m³         ISO 1183           Rheo/Phys properties         dry / cond         Unit	· · · · · · · · · · · · · · · · · · ·			
Burning Behav. at thickness hHB /-classIEC 60695-11-10Thickness tested0.8 / -mmIEC 60695-11-10Max. usage temperature (long term)140°CISO 2578Max. usage temperature (short term)270°CEMSElectrical propertiesVolume resistivity1E10 / 1E10Ohm*mIEC 60093Surface resistivity- / 1E12OhmIEC 60093Surface resistivity- / 1E12OhmIEC 60093Comparative tracking index- / 600-IEC 60112Other propertiesdry / condUnitTest StandardWater absorption3.5 / -%Sim. to ISO 62Humidity absorption1.2 / -%Sim. to ISO 62Density1620 / -kg/m³ISO 1183Rheo/Phys propertiesdry / condUnitTest StandardMax0.1 / -%ISO 294-4, 2577				
Thickness tested0.8 / -mmIEC 60695-11-10Max. usage temperature (long term)140°CISO 2578Max. usage temperature (short term)270°CEMSElectrical propertiesVolume resistivity1E10 / 1E10Ohm*mIEC 60093Surface resistivity- / 1E12OhmIEC 60093Surface resistivity- / 1E12OhmIEC 60093Electric strength38 / 38kV/mmIEC 60243-1Comparative tracking index- / 600-IEC 60112Other propertiesWater absorption3.5 / -%Humidity absorption1.2 / -%Density1620 / -kg/m³Keo/Phys propertiesdry / condUnitMax absorption0.1 / -%Keo/Phys propertiesdry / condUnitKeo/Phys propertiesKry / co				
Max. usage temperature (long term)       140       °C       ISO 2578         Max. usage temperature (short term)       270       °C       EMS         Electrical properties       dry / cond       Unit       Test Standard         Volume resistivity       1E10 / 1E10       Ohm *m       IEC 60093         Surface resistivity       - / 1E12       Ohm       IEC 60093         Surface resistivity       - / 1E12       Ohm       IEC 60093         Electric strength       38 / 38       kV/mm       IEC 60243-1         Comparative tracking index       - / 600       -       IEC 60112         Other properties       dry / cond       Unit       Test Standard         Water absorption       3.5 / -       %       Sim. to ISO 62         Humidity absorption       1.2 / -       %       Sim. to ISO 62         Density       1620 / -       kg/m³       ISO 1183         Rheo/Phys properties       dry / cond       Unit       Test Standard         Molding shrinkage (parallel)       0.1 / -       %       ISO 294-4, 2577	8			
Max. usage temperature (short term)270°CEMSElectrical propertiesdry / condUnitTest StandardVolume resistivity1E10 / 1E10Ohm*mIEC 60093Surface resistivity- / 1E12OhmIEC 60093Electric strength38 / 38kV/mmIEC 60243-1Comparative tracking index- / 600-IEC 60112Other propertiesdry / condUnitTest StandardWater absorption3.5 / -%Sim. to ISO 62Humidity absorption1.2 / -%Sim. to ISO 62Density1620 / -kg/m³ISO 1183Rheo/Phys propertiesdry / condUnitTest StandardMolding shrinkage (parallel)0.1 / -%ISO 294-4, 2577				
Electrical propertiesdry / condUnitTest StandardVolume resistivity1E10 / 1E10Ohm*mIEC 60093Surface resistivity- / 1E12OhmIEC 60093Electric strength38 / 38kV/mmIEC 60243-1Comparative tracking index- / 600-IEC 60112Other propertiesMater absorption3.5 / -%Humidity absorption1.2 / -%Density1620 / -kg/m³Rheo/Phys propertiesdry / condUnitMolding shrinkage (parallel)0.1 / -%Iso 294-4, 2577				
Volume resistivity         1E10 / 1E10         Ohm*m         IEC 60093           Surface resistivity         - / 1E12         Ohm         IEC 60093           Electric strength         38 / 38         kV/mm         IEC 60243-1           Comparative tracking index         - / 600         -         IEC 60112           Other properties         dry / cond         Unit         Test Standard           Water absorption         3.5 / -         %         Sim. to ISO 62           Humidity absorption         1.2 / -         %         Sim. to ISO 62           Density         1620 / -         kg/m³         ISO 1183           Rheo/Phys properties         dry / cond         Unit         Test Standard           Molding shrinkage (parallel)         0.1 / -         %         ISO 294-4, 2577		270	C	EINIS
Surface resistivity       - / 1E12       Ohm       IEC 60093         Electric strength       38 / 38       kV/mm       IEC 60243-1         Comparative tracking index       - / 600       -       IEC 60112         Other properties         dry / cond       Unit       Test Standard         Water absorption       3.5 / -       %       Sim. to ISO 62         Humidity absorption       1.2 / -       %       Sim. to ISO 62         Density       1620 / -       kg/m³       ISO 1183         Rheo/Phys properties         Molding shrinkage (parallel)       0.1 / -       %       ISO 294-4, 2577	Electrical properties	· · · · · · · · · · · · · · · · · · ·		
Electric strength       38 / 38       kV/mm       IEC 60243-1         Comparative tracking index       - / 600       -       IEC 60112         Other properties       dry / cond       Unit       Test Standard         Water absorption       3.5 / -       %       Sim. to ISO 62         Humidity absorption       1.2 / -       %       Sim. to ISO 62         Density       1620 / -       kg/m³       ISO 1183         Rheo/Phys properties       dry / cond       Unit       Test Standard         Molding shrinkage (parallel)       0.1 / -       %       ISO 294-4, 2577			-	
Comparative tracking index       - / 600       -       IEC 60112         Other properties       dry / cond       Unit       Test Standard         Water absorption       3.5 / -       %       Sim. to ISO 62         Humidity absorption       1.2 / -       %       Sim. to ISO 62         Density       1620 / -       kg/m³       ISO 1183         Rheo/Phys properties       dry / cond       Unit       Test Standard         Molding shrinkage (parallel)       0.1 / -       %       ISO 294-4, 2577			-	
Other properties     dry / cond     Unit     Test Standard       Water absorption     3.5 / -     %     Sim. to ISO 62       Humidity absorption     1.2 / -     %     Sim. to ISO 62       Density     1620 / -     kg/m³     ISO 1183       Rheo/Phys properties     dry / cond     Unit     Test Standard       Molding shrinkage (parallel)     0.1 / -     %     ISO 294-4, 2577	0		kV/mm	
Water absorption         3.5/-         %         Sim. to ISO 62           Humidity absorption         1.2/-         %         Sim. to ISO 62           Density         1620/-         kg/m³         ISO 1183           Rheo/Phys properties           Molding shrinkage (parallel)         0.1/-         %         ISO 294-4, 2577	Comparative tracking index	- / 600	-	IEC 60112
Humidity absorption       1.2 / -       %       Sim. to ISO 62         Density       1620 / -       kg/m³       ISO 1183         Rheo/Phys properties       dry / cond       Unit       Test Standard         Molding shrinkage (parallel)       0.1 / -       %       ISO 294-4, 2577		dry / cond	Unit	
Density     1620 / -     kg/m³     ISO 1183       Rheo/Phys properties     dry / cond     Unit     Test Standard       Molding shrinkage (parallel)     0.1 / -     %     ISO 294-4, 2577	Water absorption	3.5 / -		Sim. to ISO 62
Rheo/Phys properties     dry / cond     Unit     Test Standard       Molding shrinkage (parallel)     0.1 / -     %     ISO 294-4, 2577	Humidity absorption	1.2 / -	%	Sim. to ISO 62
Molding shrinkage (parallel)         0.1 / -         %         ISO 294-4, 2577	Density	1620 / -	kg/m³	ISO 1183
	Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (normal) 0.7 / - % ISO 294-4, 2577	Molding shrinkage (parallel)	0.1 / -	%	ISO 294-4, 2577
	Molding shrinkage (normal)	0.7 / -	%	ISO 294-4, 2577

## Diagrams

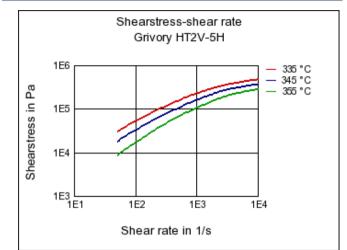
# Viscosity-shear rate



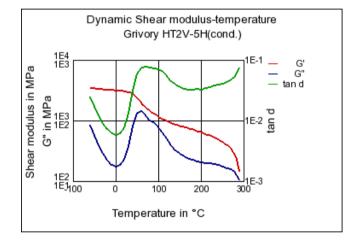
#### Dynamic Shear modulus-temperature



Shearstress-shear rate



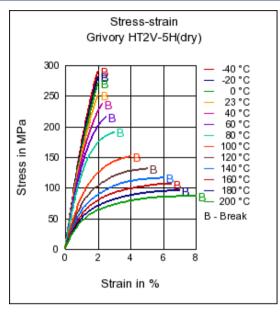
## Dynamic Shear modulus-temperature



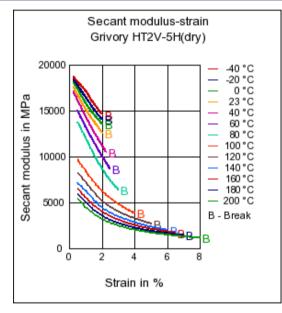
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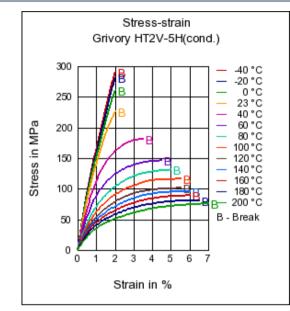
#### Stress-strain



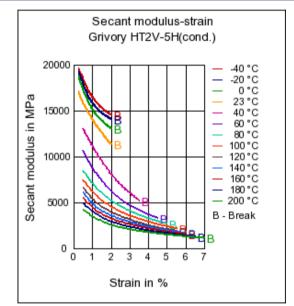
Secant modulus-strain



Stress-strain



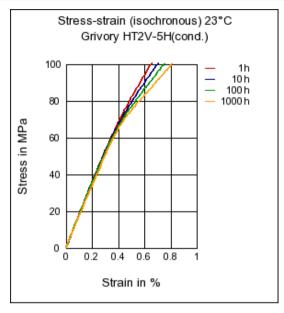
# Secant modulus-strain



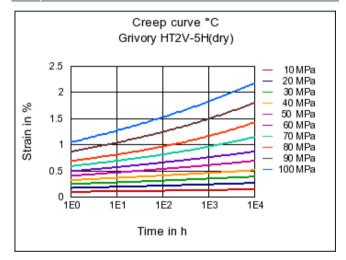
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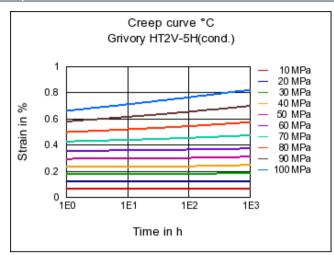
# Stress-strain (isochronous) 23°C

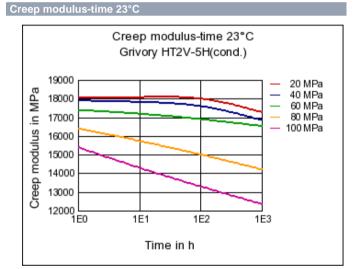


## Creep curve °C



Creep curve °C





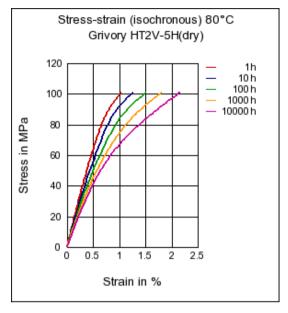
### Created: 2017-08-11 Source: www.materialdatacenter.com

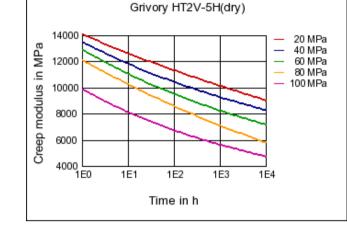
The values are intended to serve as an aid in preselecting materials and for an overview of the EMS-GRIVORY product range. The information contained in this publication is based on our present knowledge and experience. The given figures and data are guidance values and do not represent binding material specifications. No warranties of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are given regarding products, design, data and information. The customer is not released from his obligation to investigate the products fitness and the suitability for the intended application, compliance with legal requirements and intellectual property rights. We reserve the right to change the information at any time and without prior notice. The information is not to be considered a contractual obligation and anyliability whatsoever is expressly declined. For further questions about our products please contact our experts.

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Creep modulus-time 80°C

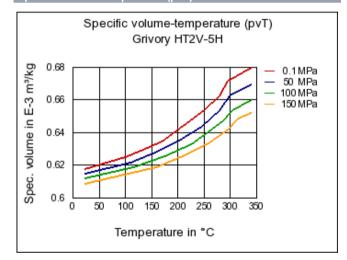
# Stress-strain (isochronous) 80°C

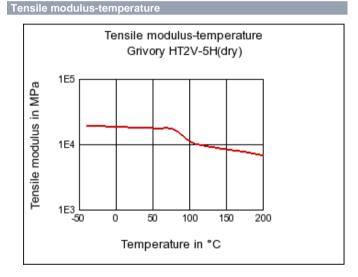




Creep modulus-time 80°C

Specific volume-temperature (pvT)



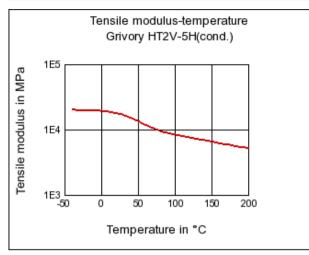


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## Tensile modulus-temperature



### Characteristics

## Processing

Injection Molding

# **Delivery form**

Granules

Special Characteristics

Improved UV resistance (outdoor use), Improved heat resistance

#### **Chemical Media Resistance**

#### Acids ٠ Acetic Acid (5% by mass) (23°C) ٠ Citric Acid solution (10% by mass) (23°C) ٠ Lactic Acid (10% by mass) (23°C) 0 Hydrochloric Acid (36% by mass) (23°C) 0 Nitric Acid (40% by mass) (23°C) 0 Sulfuric Acid (38% by mass) (23°C) •• Sulfuric Acid (5% by mass) (23°C) ٥ Chromic Acid solution (40% by mass) (23°C) Bases ٠ Sodium Hydroxide solution (35% by mass) (23°C)

- Sodium Hydroxide solution (1% by mass) (23°C)
- Ammonium Hydroxide solution (10% by mass) (23°C)

# Alcohols

Isopropyl alcohol (23°C)

🙂 Methanol (23°C)

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# Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

### Automotive

Fuel systems, Powertrain and Chassis , Interior, Exterior

Industry & Consumer goods

Housewares, Hydraulics & Pneumatics, Mechanical Engineering, Power transmission, Sports & Leisure, Tools & Accessories

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$\odot$	Ethanol (23°C)		
Hydrocarbons			
** **	n-Hexane (23°C) Toluene (23°C) iso-Octane (23°C)		
Keton	es		
••	Acetone (23°C)		
Ethom	· ·		
Ethers			
	Diethyl ether (23°C)		
Miner	al oils		
• • • •	SAE 10W40 multigrade motor oil (23°C) SAE 10W40 multigrade motor oil (130°C) SAE 80/90 hypoid-gear oil (130°C) Insulating Oil (23°C)		
Stand	ard Fuels		
	ISO 1817 Liquid 1 (60°C) ISO 1817 Liquid 2 (60°C) ISO 1817 Liquid 3 (60°C) ISO 1817 Liquid 4 (60°C) Standard fuel without alcohol (pref. ISO 1817 Liquid C) (23°C) Standard fuel with alcohol (pref. ISO 1817 Liquid 4) (23°C) Diesel fuel (pref. ISO 1817 Liquid F) (23°C) Diesel fuel (pref. ISO 1817 Liquid F) (90°C) Diesel fuel (pref. ISO 1817 Liquid F) (>90°C)		
Salt s	olutions		
	Sodium Chloride solution (10% by mass) (23°C) Sodium Hypochlorite solution (10% by mass) (23°C) Sodium Carbonate solution (20% by mass) (23°C) Sodium Carbonate solution (2% by mass) (23°C) Zinc Chloride solution (50% by mass) (23°C)		
Other			
	Ethyl Acetate (23°C) Hydrogen peroxide (23°C) DOT No. 4 Brake fluid (130°C) Ethylene Glycol (50% by mass) in water (108°C) 1% nonylphenoxy-polyethyleneoxy ethanol in water (23°C) 50% Oleic acid + 50% Olive Oil (23°C) Water (23°C) Deionized water (90°C) Phenol solution (5% by mass) (23°C)		

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