



## **Europe-Africa-Middle East: COMMERCIAL**

Non-chlorinated and non-brominated flame retardant PC+ABS offering balanced flow and impact properties for various applications.

TYPICAL PROPERTIES 1	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Taber Abrasion, CS-17, 1 kg	72	mg/1000cy	GE Method
Tensile Stress, yield, 5 mm/min	50	MPa	ISO 527
Tensile Stress, break, 5 mm/min	40	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	55	MPa	ISO 527
Tensile Stress, break, 50 mm/min	40	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	30	%	ISO 527
Tensile Strain, yield, 50 mm/min	3	%	ISO 527
Tensile Strain, break, 50 mm/min	>50	%	ISO 527
Tensile Modulus, 1 mm/min	2700	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	90	MPa	ISO 178
Flexural Modulus, 2 mm/min	2600	MPa	ISO 178
Hardness, H358/30	115	MPa	ISO 2039-1
Hardness, Rockwell R	122	-	ISO 2039-2
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	30	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	10	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	30	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	9	kJ/m²	ISO 179/1eA
THERMAL			
Thermal Conductivity	0.2	W/m-°C	ISO 8302

Source, GMD, Last Update:06/11/2007

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA All information, recommendation or advice given by SABIC Innovative Plastics IP BV, or any of its subsidiaries, affiliates or authorized representatives, whether written or oral, is given in good faith, to the best of its knowledge and based on current procedures in effect. Each user of the products shall convince himself, through all available sources (including finished product testing in its appropriate environment) of the suitability of the products supplied for its own particular purpose. Because actual use of the products by the user is beyond the control of SABIC INNOVATIVE PLASTICS HOLDING BV, its subsidiaries and affiliates, such use is in the exclusive responsibility of the user. SABIC INNOVATIVE PLASTICS HOLDING BV, its subsidiaries and affiliates cannot be held responsible respectively liable for any loss incurred through incorrect or faulty use of the products. Information, recommendations and/or advice are neither made to infringe on any patents, nor to grant a license under any patent or intellectual property right of SABIC INNOVATIVE PLASTICS HOLDING BV or any of its subsidiaries or affiliated companies, nor to grant the right to file for any patent protection

Typical values only. Variations within normal tolerances are possible for variose colours. All values are measured at least after 48 hours storage at 230C/50% relative humidity.
 All properlies, expect the melt volume rate are measured on injection moulded samples. All samples are prepared according to ISO 294.

Only typical data for material selection purpose. Not to be used for part or tool design.
 This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
 Own measurement according to UL.

<sup>\*</sup> Cycoloy is a trademark of SABIC INNOVATIVE PLASTICS HOLDING BV

<sup>© 1997-2008</sup> SABIC INNOVATIVE PLASTICS HOLDING BV.All rights reserved





#### **Europe-Africa-Middle East: COMMERCIAL**

TYPICAL PROPERTIES 1	TYPICAL VALUE	UNIT	STANDARD
THERMAL			
CTE, -40°C to 40°C, flow	7.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Ball Pressure Test, approximate maximum	80	°C	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	92	°C	ISO 306
Vicat Softening Temp, Rate B/120	95	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	88	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	78	°C	ISO 75/Ae
Relative Temp Index, Elec	60	°C	UL 746B
Relative Temp Index, Mech w/impact	60	°C	UL 746B
Relative Temp Index, Mech w/o impact	60	°C	UL 746B
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow (2)	0.4 - 0.6	%	GE Method
Density	1.17	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.6	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Volume Rate, MVR at 260°C/2.16 kg	15	cm <sup>3</sup> /10 min	ISO 1133
ELECTRICAL			
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
Volume Resistivity	>1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 0.8 mm	35	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	25	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 3.2 mm	17	kV/mm	IEC 60243-1
Relative Permittivity, 50/60 Hz	2.8	-	IEC 60250

Source, GMD, Last Update:06/11/2007

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA All information, recommendation or advice given by SABIC INNOVATIVE PLASTICS HOLDING BY, or any of its subsidiaries, affiliates or authorized representatives, whether written or oral, is given in good faith, to the best of its knowledge and based on current procedures in effect. Each user of the products shall convince himself, through all available sources (including finished product testing in its appropriate environment) of the suitability of the products supplied for its own particular purpose. Because actual use of the products by the user is beyond the control of SABIC INNOVATIVE PLASTICS HOLDING BY, its subsidiaries and affiliates cannot be held responsible respectively liable for any loss incurred through incorrect or faulty use of the products. Information, recommendations and/or advice are neither made to infringe on any patents, nor to grant a license under any patent or intellectual property right of SABIC INNOVATIVE PLASTICS HOLDING BY is subsidiaries or affiliated companies, nor to grant the right to file for any patent protection

<sup>1)</sup> Typical values only. Variations within normal tolerances are possible for variose colours. All values are measured at least after 48 hours storage at 2300.750% relative humidity.

All properties, expect the melt volume rate are measured on injection moulded samples.

All samples are prepared according to ISO 294.

Only typical data for material selection purpose. Not to be used for part or tool design.
 This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
 Own measurement according to UL.

<sup>\*</sup> Cycoloy is a trademark of SABIC Innovative Plastics IP BV

<sup>© 1997-2008</sup> SABIC Innovative Plastics IP BV.All rights reserved





### **Europe-Africa-Middle East: COMMERCIAL**

TYPICAL PROPERTIES 1	TYPICAL VALUE	UNIT	STANDARD
ELECTRICAL			
Relative Permittivity, 1 MHz	2.7	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.004	-	IEC 60250
Dissipation Factor, 1 MHz	0.006	-	IEC 60250
FLAME CHARACTERISTICS			
UL Recognized, 94V-2 Flame Class Rating (3)	0.89	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating (3)	1.5	mm	UL 94
UL Recognized, 94-5VB Rating (3)	2.3	mm	UL 94
Glow Wire Flammability Index 850°C, passes at	1	mm	IEC 60695-2-12
Glow Wire Flammability Index 960°C, passes at	3.2	mm	IEC 60695-2-12
Oxygen Index (LOI)	32	%	ISO 4589

Source, GMD, Last Update:06/11/2007

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA All information, recommendation or advice given by SABIC INNOVATIVE PLASTICS HOLDING BV, or any of its subsidiaries, affiliates or authorized representatives, whether written or oral, is given in good faith, to the best of its knowledge and based on current procedures in effect. Each user of the products shall convince himself, through all available sources (including finished product testing in its appropriate environment) of the suitability of the products supplied for its own particular purpose. Because actual use of the products by the user is beyond the control of SABIC INNOVATIVE PLASTICS HOLDING BV, its subsidiaries and affiliates, such use is in the exclusive responsibility of the user. SABIC INNOVATIVE PLASTICS HOLDING BV, its subsidiaries and affiliates cannot be held responsible respectively liable for any loss incurred through incorrect or faulty use of the products. Information, recommendations and/or advice are neither made to infringe on any patents, nor to grant a license under any patent or intellectual property right of SABIC INNOVATIVE PLASTICS HOLDING BV or any of its subsidiaries or affiliated companies, nor to grant the right to file for any patent protection

<sup>1)</sup> Typical values only. Variations within normal tolerances are possible for variose colours. All values are measured at least after 48 hours storage at 2300.750% relative humidity.

All properties, expect the melt volume rate are measured on injection moulded samples.

All samples are prepared according to ISO 294.

Only typical data for material selection purpose. Not to be used for part or tool design.
 This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
 Own measurement according to UL.

<sup>\*</sup> Cycoloy is a trademark of SABIC Innovative Plastics IP BV





### **Europe-Africa-Middle East: COMMERCIAL**

PROCESSING PARAMETERS	TYPICAL VALUE	UNIT	
Injection Molding			
Drying Temperature	75 - 80	°C	
Drying Time	2 - 4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	230 - 270	°C	
Nozzle Temperature	220 - 260	°C	
Front - Zone 3 Temperature	230 - 270	°C	
Middle - Zone 2 Temperature	220 - 260	°C	
Rear - Zone 1 Temperature	200 - 230	°C	
Hopper Temperature	60 - 80	°C	
Mold Temperature	50 - 70	°C	

Source, GMD, Last Update:06/11/2007

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA All information, recommendation or advice given by SABIC INNOVATIVE PLASTICS HOLDING BV, or any of its subsidiaries, affiliates or authorized representatives, whether written or oral, is given in good faith, to the best of its knowledge and based on current procedures in effect. Each user of the products shall convince himself, through all available sources (including finished product testing in its appropriate environment) of the suitability of the products supplied for its own particular purpose. Because actual use of the products by the user is beyond the control of SABIC INNOVATIVE PLASTICS HOLDING BV, its subsidiaries and affiliates, such use is in the exclusive responsibility of the user. SABIC INNOVATIVE PLASTICS HOLDING BV, its subsidiaries and affiliates cannot be held responsible respectively liable for any loss incurred through incorrect or faulty use of the products. Information, recommendations and/or advice are neither made to infringe on any patents, nor to grant a license under any patent or intellectual property right of SABIC INNOVATIVE PLASTICS HOLDING BV or any of its subsidiaries or affiliated companies, nor to grant the right to file for any patent protection

<sup>1)</sup> Typical values only. Variations within normal tolerances are possible for variose colours. All values are measured at least after 48 hours storage at 2300.750% relative humidity.

All properties, expect the melt volume rate are measured on injection moulded samples.

All samples are prepared according to ISO 294.

Only typical data for material selection purpose. Not to be used for part or tool design.
 This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
 Own measurement according to UL.

<sup>\*</sup> Cycoloy is a trademark of SABIC Innovative Plastics IP BV