

Typical Properties of AGS Thermoplastics

INJECTOBLEND™ FABS007

General Purpose ABS

FABS007 is available in black color only. Further information and details are available upon request

Properties	Test Method	English (U.S.)	Units (System)	Metric (S.I.)	Units (System)
PHYSICAL					
Specific Gravity, solid	D 792	-	1.05	-	1.05
Mold Shrinkage, 0.125" (3.2mm)	D 955	%	0.4-0.7	%	0.4-0.7
Water Absorption, 73F (23C), 24 hrs	D 570	%	-	%	-
Melt Flow Rate @ 230C / 3.8kg, nominal	D 1238	g/10min	5	g/10min	5
MECHANICAL					
Tensile Strength @ Yield, 73 ⁰ F (23 ⁰ C)	D 638	psi	6,000	MPa	41
Tensile Elongation @ Break, 73 ⁰ F (23 ⁰ C)	D 638	%	20	%	20
Flexural Strength, 73 ⁰ F (23 ⁰ C)	D 790	psi	9,000	MPa	62
Flexural Modulus, 73 ⁰ F (23 ⁰ C)	D 790	psi	330,000	MPa	2,277
Shear Modulus, 73 ⁰ F (23 ⁰ C)	D 4065	psi	-	MPa	-
Izod Impact, notched, 73 ⁰ F (23 ⁰ C), 0.125" (3.2mm)	D256	ft-lb/in	2.5	J/m	134
Izod Impact, notched, -22 ⁰ F (-30 ⁰ C), 0.125" (3.2mm)	D256	ft-lb/in	1.2	J/m	64
Izod Impact, notched, 73 ⁰ F (23 ⁰ C), 4 mm	ISO 180	-	-	kJ/m ²	-
Instrumented Impact Total Energy, 73 ⁰ F (23 ⁰ C), 0.125" (3.2mm)	D 3763	ft-lb	-	J	-
THERMAL					
Deflection Temperature, unannealed	D 648		176	176	80
264 psi (1.82 MPa), Load			190	190	88
66 psi (0.45 MPa), Load					
CLTE, -40 ⁰ C - +80 ⁰ C (-40 ⁰ F - +176 ⁰ F)	D 696	in/in/ ⁰ F	5.3 E-5	m/m/ ⁰ C	9.5 E-5
FLAMMABILITY					
UL 94 Flame Class, 0.058" (1.47mm)	UL 94	-	HB	-	HB

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Typical Properties of AGS Thermoplastics

INJECTOBLEND™ FABSPC003

ABS/PC Blend

FABSPC003 is available with internal and external lubricants, UV stabilized and other modifications.

Further information and details are available upon request

Properties	Test Method	English (U.S.)	Units System	Metric (S.I.)	Units System
PHYSICAL					
Specific Gravity, solid	D 792	-	1.13	-	1.13
Mold Shrinkage, 0.125" (3.2mm)	D 955	%	0.5-0.8	%	0.5-0.8
Water Absorption, 73F (23C), 24 hrs	D 570	%	0.10	%	0.10
MECHANICAL					
Tensile Strength @ Yield, 73°F (23°C)	D 638	psi	7,200	MPa	50
Tensile Elongation @ Break, 73°F (23°C)	D 638	%	75	%	75
Flexural Strength, 73°F (23°C)	D 790	psi	11,000	MPa	76
Flexural Modulus, 73°F (23°C)	D 790	psi	275,000	MPa	1,898
Izod Impact, notched, 73°F (23°C), 0.125" (3.2mm)	D256	ft-lb/in	11.0	J/m	587
Izod Impact, notched, -22°F (-30°C), 0.125" (3.2mm)	D256	ft-lb/in	8.0	J/m	427
Izod Impact, notched, 73°F (23°C), 4 mm	ISO 180	-	-	kJ/m ²	46
Instrumented Impact Total Energy, 73°F (23°C), 0.125" (3.2mm)	D 3763	ft-lb	40	J	54
Instrumented Impact Total Energy, -22°F (-30°C), 0.125" (3.2mm),	D 3763	ft-lb	44	J	60
THERMAL					
Deflection Temperature, unannealed	D 648				
264 psi (1.82 MPa), Load		°F	234	°C	112
66 psi (0.45 MPa), Load		°F	259	°C	126
CLTE, -40 °C - +80 °C (-40 °F - +176 °F)	D 696	in/in/°F	4.0 E-5	m/m/°C	7.2 E-5
Vicat Softening Temperature, 50N	ISO 306	°F	268	°C	131
FLAMMABILITY					
UL 94 Flame Class, 0.058" (1.47mm)	UL 94	-	HB	-	HB

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Typical Properties of AGS Thermoplastics

INJECTOBLEND™ FPA66233

Nylon 6'6, 33% Glass Fiber Reinforced, Heat Stabilized

Properties reported DAM. Further information is available upon request

Properties Reported DAM. Properties @ 50% RH are available upon request	Test Method	English (U.S.)	Units (System)	Metric (S.I.)	Units (System)
PHYSICAL					
Specific Gravity, solid	D 792	-	1.40	-	1.40
Mold Shrinkage, flow, 0.125" (3.2mm)	D 955	%	0.3	%	0.3
Mold Shrinkage, cross-flow, 0.125" (3.2mm)	D 955	%	1.1	%	1.1
Water Absorption, 73F (23C), 24 hrs	D 570	%	0.6	%	0.6
Water Absorption, saturation, 73F (23C)	D 570	%	5.4	%	5.4
Fiberglass Content	D 2584	%	33	%	33
MECHANICAL					
Tensile Modulus, 73°F (23°C)	ISO 527-1/2	-	-	MPa	10,000
Tensile Strength @ Break, 73°F (23°C)	D 638	Psi	25,000	MPa	173
Tensile Elongation @ Break, 73°F (23°C)	ISO 527-1/2	-	-	MPa	170
	D 638	%	2	%	2
Flexural Strength, 73°F (23°C)	ISO 178	-	-	MPa	255
Flexural Modulus, 73°F (23°C)	ISO 178	-	-	MPa	8,500
Izod Impact Strength, notched, 73°F (23°C), 0.125" (3.2mm)	D256	ft-lb/in	2.0	J/m	107
Izod Impact, Strength, notched, 23°C, 4 mm	ISO 180 1/A	-	-	kJ/m ²	10
Izod Impact Strength, notched, -30°C, 4 mm	ISO 180 1/A	-	-	kJ/m ²	7
Charpy Impact Strength, 23°C, 4 mm	ISO 179/1eU	-	-	kJ/m ²	70
THERMAL					
Deflection Temperature, unannealed	D 648	°F	473	°C	245
264 psi (1.82 MPa), Load		°F	482	°C	250
66 psi (0.45 MPa), Load		°C	-	°C	248
1.82 MPa Load, flatwise	ISO 75-1/2	-	-	°C	248
CLTE, -40 °C - +35 °C (-40 °F - +95 °F)	D 696	in/in/°F	1.38 E-5	m/m/°C	2.50 E-5
Melting Point	ISO 3146	°F	502	°C	261
FLAMMABILITY					
UL 94 Flame Class. 0.058" (1.47mm)	UL 94	-	HB	-	HB
2.00mm +/- 0.2 mm	ISO 3795	-	-	mm/min	<100

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Typical Properties of AGS Thermoplastics

INJECTOBLEND™ FPC120

Impact Modified Grade Polycarbonate

FPC120 is available with internal and external lubricants, UV stabilized and other modifications.
Further information and details are available upon request

Properties	Test Method	English (U.S.)	Units System	Metric (S.I.)	Units System
PHYSICAL					
Specific Gravity, solid	D 792	-	1.19	-	1.19
Mold Shrinkage, 0.125" (3.2mm)	D 955	%	0.5-0.8	%	0.5-0.8
Water Absorption, 73F (23C), 24 hrs	D 570	%	0.15	%	0.15
Melt Flow Rate @ 300C / 1.2kg, nominal	D 1238	g/10min	20	g/10min	20
MECHANICAL					
Tensile Strength @ Yield, 73°F (23°C)	D 638	psi	8,400	MPa	58
Tensile Elongation @ Break, 73°F (23°C)	D 638	%	50	%	50
Flexural Strength, 73°F (23°C)	D 790	psi	12,500	MPa	86
Flexural Modulus, 73°F (23°C)	D 790	psi	330,000	MPa	2,277
Shear Modulus, 73°F (23°C)	D 4065	psi	125,500	MPa	866
Izod Impact, notched, 73°F (23°C), 0.125" (3.2mm)	D256	ft-lb/in	13.0	J/m	694
Izod Impact, notched, -22°F (-30°C), 0.125" (3.2mm)	D256	ft-lb/in	7.0	J/m	374
Izod Impact, notched, 73°F (23°C), 4 mm	ISO 180	-	-	kJ/m ²	52
Charpy Impact, notched, 73°F (23°C), 4 mm	ISO 179	-	-	kJ/m ²	30
Instrumented Impact Total Energy, 73°F (23°C), 0.125" (3.2mm)	D 3763	ft-lb	42	J	57
Instrumented Impact Total Energy, -22°F (-30°C), 0.125" (3.2mm),	D 3763	ft-lb	46	J	63
THERMAL					
Deflection Temperature, unannealed	D 648				
264 psi (1.82 MPa), Load		°F	259	°C	126
66 psi (0.45 MPa), Load		°F	275	°C	135
CLTE, -40 °C - +80 °C (-40 °F - +176 °F)	D 696	in/in/°F	4.31 E-5	m/m/°C	7.76 E-5
Vicat Softening Temperature, 50N	ISO 306	°F	288	°C	142
FLAMMABILITY					
UL 94 Flame Class, 0.058" (1.47mm)	UL 94	-	HB	-	HB

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Typical Properties of AGS Thermoplastics

INJECTOBLEND™ FPOM110 Medium Viscosity Acetal Copolymer

FPOM110 is available in black color, UV stabilized and with other modifications. Further information and details are available upon request

Properties	Test Method	English (U.S.)	Units System	Metric (S.I.)	Units System
PHYSICAL					
Specific Gravity, solid	D 792	-	1.41	-	1.41
Mold Shrinkage, 0.125" (3.2mm)	D 955	%	1.8 – 2.2	%	1.8 – 2.2
Water Absorption, 73F (23C), 24 hrs	D 570	%	0.3	%	0.3
Water Absorption, Saturation 73F (23C)	D 570	%	0.9	%	0.9
Melt Flow Rate	D 1238	g/10min	10	g/10min	10
MECHANICAL					
Tensile Strength @ Yield, 73°F (23°C)	D 638	psi	9,000	MPa	62
Tensile Elongation @ Break, 73°F (23°C)	D 638	%	20	%	20
Flexural Strength, 73°F (23°C)	D 790	psi	13,500	MPa	93
Flexural Modulus, 73°F (23°C)	D 790	psi	390,000	MPa	2,691
Izod Impact, notched, 73°F (23°C), 0.125" (3.2mm)	D256	ft-lb/in	1.1	J/m	59
Izod Impact, notched, 73°F (23°C), 4 mm	ISO 180	-	-	kJ/m ²	5.0
THERMAL					
Deflection Temperature, unannealed 264 psi (1.82 MPa), Load 66 psi (0.45 MPa), Load	D 648	°F	221	°C	105
		°F	320	°C	160
Melting Point	D 3418	°F	325	°C	163
CLTE, -40°C to +35°C (-40°F to +95°F)	D 696	in/in/°F	-	in/in/°C	-
FLAMMABILITY					
UL 94 Flame Class, 0.058" (1.47mm)	UL 94	-	HB	-	HB

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Typical Properties of AGS Thermoplastics

INJECTOBLEND™ FPP135

Polypropylene Copolymer

FPP135 is available in a variety of viscosities and other modifications.
Further information and details are available upon request

Properties	Test Method	English (U.S.)	Units System	Metric (S.I.)	Units System
PHYSICAL					
Specific Gravity, solid	D 792	-	0.91	-	0.91
Mold Shrinkage, 0.125" (3.2mm)	D 955	%	1.3 - 2.0	%	1.3 - 2.0
MECHANICAL					
Tensile Strength @ Yield. 73°F (23°C)	D 638	psi	3,900	MPa	27
Tensile Elongation @ Yield. 73°F (23°C)	D 638	%	6	%	6
Flexural Strength. 73°F (23°C)	D 790	psi	4,000	MPa	28
Flexural Modulus. 73°F (23°C)	D 790	psi	145,000	MPa	1,000
Izod Impact, notched. 73°F (23°C), 0.125" (3.2mm)	D256	ft-lb/in	2.0	J/m	107
Dart Impact. -22°F (-30°C), 0.125" (3.2mm)	GM9300P	ft-lb	4.5	J	6.1
THERMAL					
Deflection Temperature, unannealed 264 psi (1.82 MPa), Load 66 psi (0.45 MPa), Load	D 648	°F	126	°C	52
		°F	185	°C	85
CLTE. 20 °C - +75 °C (68 °F - +167 °F)	D 696	in/in/°F	5.5 E-5	m/m/°C	9.9 E-5
Thermal Oxidative Stability. 150°C	D 3012	hours	350	hours	350
FLAMMABILITY					
UL 94 Flame Class. 0.058" (1.47mm) GM	UL 94 ISO 3795	-	HB < 100	-	HB < 100

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