

ATECH[®] 3100

ATECH is a series of sheets based on ABS which is a raw material with very high impact-strength. ABS also has impressive thermal qualities and is easy to thermoform and fabricate. The ATECH 3100 is a super high impact matt ABS which remains matt after thermoforming.

ALSO AVAILABLE IN:

- ATECH 3103 has extra UV stabilizers added to improve weather resistance
- ATECH 3110 with the matt surface on both sides
- Dual colouring to optimize to your needs

RECYCLING

Our total recycling concept (TRC), is a major advantage in todays environmentally friendly market. The TRC concept covers all types of sheets to provide you with cost saving. Off-cuts from the sheets can be used in production of new sheets by co-extruding virgin material as the top layer. Care is taken that all quality requirements are met.

ATECH® 3100 BENEFITS:

- · Supermatt surface finish after thermoforming
- Easy to thermoform
- High impact strength
- Good thermal qualities

APPLICATION AREAS:

Suitable for demanding automotive parts which are exposed to secondary UV light, and other tough industrial applications where a supermatt finish is required.

DELIVERY PROGRAM:

Standard size: 1250 x 2050 mm Max width: 1750 mm Thickness range: 1,5 – 8 mm Colours: 14 standard colours and customer specific colours upon request

Embossing: 00/00, 00/30, 00/35, 00/40, 00/50, 00/57

ATECH® 3100 TECHNICAL SPECIFICATIONS

Density 1,05 g/cm ³ ISO 1183 Mechanical properties Tensile strength at yield 31 MPa ISO 527-2 Tensile strength at yield 31 MPa ISO 527-2 Tensile elongation at yield >2 % ISO 527-2 Tensile strength 31 MPa ISO 527-2 Tensile elongation at yield >2 % ISO 527-2 Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at treak 25 MPa ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Flexural strength* 55 MPa ISO 150 527-2 Flexural modulus* 2000 MPa ISO 178 Izod Impact, notched +23°C 27	Property	Value	Unit	Standard
Mechanical properties Tensile strength at yield 31 MPa ISO 527-2 Tensile elongation at yield >2 % ISO 527-2 Tensile elongation at yield >2 % ISO 527-2 Tensile elongation at yield >2 % ISO 527-2 Tensile elongation at Tensile strength 31 MPa ISO 527-2 Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at break 25 MPa ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Flexural strength* 55 MPa ISO 178 Flexural modulus* 2000 MPa ISO 178 Izod Impact, notched +23°C 27 KJ/m² ISO 180/A Izod Impact, notched -30°C 12 KJ/m² ISO 179-1/1eA	Physical properties			
Tensile strength at yield 31 MPa ISO 527-2 Tensile elongation at yield >2 % ISO 527-2 Tensile elongation at yield 31 MPa ISO 527-2 Tensile strength 31 MPa ISO 527-2 Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Flexural strength* 55 MPa ISO 178 Izod Impact, notched +23°C 27 kJ/m² ISO 180/A Izod Impact, notched +23°C 13 kJ/m² ISO 180/A Izod Impact, notched -30°C 12 kJ/m² ISO 179-1/14A Charpy Impact, notched -30°C 13	Density	1,05	g/cm ³	ISO 1183
Tensile elongation at yield >2 % ISO 527-2 Tensile strength 31 MPa ISO 527-2 Tensile strength 31 MPa ISO 527-2 Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at break 25 MPa ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Tensile elongation at break 25 MPa ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Tensile elongation at break 200 MPa ISO 527-2 Tensile elongation at break 200 MPa ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Flexural strength* 55 MPa ISO 178 Izod Inpact, notched +23°C 27 K.J/m² ISO 180/A Izod Inpact, notched -23°C 13 K.J/m² ISO 180/A Charpy Impact, notched -23°C 13	Mechanical properties			
Tensile strength 31 MPa ISO 527-2 Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at Tensile strength 25 MPa ISO 527-2 Tensile elongation at break 25 MPa ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Flexural strength* 55 MPa ISO 527-2 Flexural modulus* 1600 MPa ISO 527-2 Isto inpact, notched +23°C 2000 MPa ISO 178 Izod Impact, notched +23°C 27 kJ/m² ISO 180/A Izod Impact, notched -23°C 12 kJ/m² ISO 180/A Charpy Impact, notched +23°C 26 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 10	Tensile strength at yield	31	MPa	ISO 527-2
Tensile elongation at Tensile strength >2 % ISO 527-2 Tensile elongation at Tensile strength 25 MPa ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Flexural strength* 55 MPa ISO 527-2 Flexural strength* 55 MPa ISO 527-2 Flexural modulus* 2000 MPa ISO 527-2 Izod Impact, notched +23°C 27 KJ/m ² ISO 180/A Izod Impact, notched -23°C 13 KJ/m ² ISO 180/A Izod Impact, notched -30°C 12 KJ/m ² ISO 179-1/1eA Charpy Impact, notched -30°C 13 KJ/m ² ISO 179-1/1eA Charpy Impact, notched -30°C 11 KJ/m ² ISO 179-1/1eA Charpy Impact, notched -30°C 10 KJ/m ² ISO 179-1/1eA Ball intendation hardness*	Tensile elongation at yield	>2	%	ISO 527-2
Tensile strength at break 25 MPa ISO 527-2 Tensile elongation at break >40 % ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Flexural strength* 55 MPa ISO 178 Flexural modulus* 2000 MPa ISO 178 Izod Impact, notched +23°C 27 kJ/m² ISO 180/A Izod Impact, notched -33°C 13 kJ/m² ISO 180/A Izod Impact, notched -33°C 12 kJ/m² ISO 180/A Izod Impact, notched -33°C 26 kJ/m² ISO 180/A Charpy Impact, notched -33°C 26 kJ/m² ISO 179-1/1eA Charpy Impact, notched -33°C 13 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -40°C 10 kJ/m² ISO 179-1/1eA Ball intendation hardness* 77 MPa ISO 2039 120	Tensile strength	31	MPa	ISO 527-2
Tensile elongation at break >40 % ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Flexural strength* 55 MPa ISO 178 Flexural modulus* 2000 MPa ISO 178 Izod Impact, notched +23°C 27 kJ/m² ISO 180/A Izod Impact, notched -23°C 13 kJ/m² ISO 180/A Izod Impact, notched -30°C 12 kJ/m² ISO 179-1/1eA Charpy Impact, notched -23°C 13 kJ/m² ISO 179-1/1eA Charpy Impact, notched -23°C 13 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 10 kJ/m² ISO 179-1/1eA Charpy Impact, notched -40°C 10 kJ/m² ISO 179-1/1eA Ball intendation hardness* 77 MPa ISO 2039 Thermal properties Iinear coefficient of thermal expansion (20-70 °C) 65x10°6 K⁻¹ ISO 11359-	Tensile elongation at Tensile strength	>2	%	ISO 527-2
Elastic modulus 1600 MPa ISO 527-2 Elastic modulus 1600 MPa ISO 527-2 Flexural strength* 55 MPa ISO 178 Flexural modulus* 2000 MPa ISO 178 Izod Impact, notched +23°C 27 kJ/m² ISO 180/A Izod Impact, notched -23°C 13 kJ/m² ISO 180/A Izod Impact, notched -30°C 12 kJ/m² ISO 179-1/1eA Charpy Impact, notched -23°C 13 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 10 kJ/m² ISO 179-1/1eA Charpy Impact, notched -40°C 10 kJ/m² ISO 179-1/1eA Ball intendation hardness* 77 MPa ISO 2039 Thermal properties Linear coefficient of thermal expansion (20-70 °C) 65x10°6 K¹ ISO 11359-2 Vicat softening temperature B120 96 °C	Tensile strength at break	25	MPa	ISO 527-2
Flexural strength* 55 MPa ISO 178 Flexural modulus* 2000 MPa ISO 178 Izod Impact, notched +23°C 27 kJ/m² ISO 180/A Izod Impact, notched -23°C 13 kJ/m² ISO 180/A Izod Impact, notched -30°C 12 kJ/m² ISO 180/A Izod Impact, notched -30°C 26 kJ/m² ISO 179-1/1eA Charpy Impact, notched -23°C 13 kJ/m² ISO 179-1/1eA Charpy Impact, notched -23°C 13 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -40°C 10 kJ/m² ISO 179-1/1eA Bal intendation hardness* 77 MPa ISO 2039 Thermal properties Iso 11359-2 Vicat softening temperature B120 96 °C ISO 306 Heat deflection temperature HDT-A 86 °C ISO 75-2 ISO 75-2	Tensile elongation at break	>40	%	ISO 527-2
Flexural modulus* 2000 MPa ISO 178 Izod Impact, notched +23°C 27 kJ/m² ISO 180/A Izod Impact, notched -23°C 13 kJ/m² ISO 180/A Izod Impact, notched -30°C 12 kJ/m² ISO 179-1/16A Charpy Impact, notched +23°C 26 kJ/m² ISO 179-1/16A Charpy Impact, notched -23°C 13 kJ/m² ISO 179-1/16A Charpy Impact, notched -23°C 13 kJ/m² ISO 179-1/16A Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/16A Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/16A Charpy Impact, notched -40°C 10 kJ/m² ISO 179-1/16A Charpy Impact, notched -40°C 10 kJ/m² ISO 179-1/16A Ball intendation hardness* 77 MPa ISO 2039 Thermal properties Iso 2039 Iso 2039 Iso 2039 Linear coefficient of thermal expansion (20-70 °C) 65x10 ⁻⁶ K ¹ ISO 11359-2 Vicat softening temperature B120 96 °C ISO 306	Elastic modulus	1600	MPa	ISO 527-2
Izod Impact, notched +23°C 27 kJ/m² ISO 180/A Izod Impact, notched -23°C 13 kJ/m² ISO 180/A Izod Impact, notched -30°C 12 kJ/m² ISO 180/A Charpy Impact, notched +23°C 26 kJ/m² ISO 179-1/1eA Charpy Impact, notched +23°C 26 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 13 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -40°C 10 kJ/m² ISO 179-1/1eA Ball intendation hardness* 77 MPa ISO 2039 Thermal properties Linear coefficient of thermal expansion (20-70 °C) 65x10°6 K¹ ISO 11359-2 Vicat softening temperature B120 96 °C ISO 306 Heat deflection temperature HDT-A 86 °C ISO 75-2	Flexural strength*	55	MPa	ISO 178
Izod Impact, notched -23°C 13 kJ/m² ISO 180/A Izod Impact, notched -30°C 12 kJ/m² ISO 180/A Charpy Impact, notched +23°C 26 kJ/m² ISO 179-1/1eA Charpy Impact, notched -23°C 13 kJ/m² ISO 179-1/1eA Charpy Impact, notched -23°C 13 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -40°C 10 kJ/m² ISO 179-1/1eA Charpy Impact, notched -40°C 10 kJ/m² ISO 179-1/1eA Ball intendation hardness* 77 MPa ISO 2039 Thermal properties Linear coefficient of thermal expansion (20-70 °C) 65x10 ⁻⁶ K ⁻¹ ISO 11359-2 Vicat softening temperature B120 96 °C ISO 306 Heat deflection temperature HDT-A 86 °C ISO 75-2	Flexural modulus*	2000	MPa	ISO 178
Izod Impact, notched -30°C12kJ/m²ISO 180/ACharpy Impact, notched +23°C26kJ/m²ISO 179-1/1eACharpy Impact, notched -23°C13kJ/m²ISO 179-1/1eACharpy Impact, notched -30°C11kJ/m²ISO 179-1/1eACharpy Impact, notched -30°C11kJ/m²ISO 179-1/1eACharpy Impact, notched -40°C10kJ/m²ISO 179-1/1eABall intendation hardness*77MPaISO 2039Thermal propertiesLinear coefficient of thermal expansion (20-70 °C)65x10 ⁻⁶ K ⁻¹ ISO 11359-2Vicat softening temperature B12096°CISO 306Heat deflection temperature HDT-A86°CISO 75-2	Izod Impact, notched +23°C	27	kJ/m ²	ISO 180/A
Charpy Impact, notched +23°C 26 kJ/m² ISO 179-1/1eA Charpy Impact, notched -23°C 13 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -30°C 11 kJ/m² ISO 179-1/1eA Charpy Impact, notched -40°C 10 kJ/m² ISO 179-1/1eA Ball intendation hardness* 77 MPa ISO 2039 Thermal properties Linear coefficient of thermal expansion (20-70 °C) 65x10 ⁻⁶ K ⁻¹ ISO 11359-2 Vicat softening temperature B120 96 °C ISO 306 Heat deflection temperature HDT-A 86 °C ISO 75-2	Izod Impact, notched -23°C	13	kJ/m ²	ISO 180/A
Charpy Impact, notched -23°C13kJ/m²ISO 179-1/1eACharpy Impact, notched -30°C11kJ/m²ISO 179-1/1eACharpy Impact, notched -40°C10kJ/m²ISO 179-1/1eABall intendation hardness*77MPaISO 2039Thermal propertiesLinear coefficient of thermal expansion (20-70 °C)65x10°6K⁻1ISO 11359-2Vicat softening temperature B12096°CISO 306Heat deflection temperature HDT-A86°CISO 75-2	Izod Impact, notched -30°C	12	kJ/m ²	ISO 180/A
Charpy Impact, notched -30°C11kJ/m²ISO 179-1/1eACharpy Impact, notched -40°C10kJ/m²ISO 179-1/1eABall intendation hardness*77MPaISO 2039Thermal propertiesLinear coefficient of thermal expansion (20-70 °C)65x10°6K⁻1ISO 11359-2Vicat softening temperature B12096°CISO 306Heat deflection temperature HDT-A86°CISO 75-2	Charpy Impact, notched +23°C	26	kJ/m ²	ISO 179-1/1eA
Charpy Impact, notched -40°C10kJ/m²ISO 179-1/1eABall intendation hardness*77MPaISO 2039Thermal propertiesLinear coefficient of thermal expansion (20-70 °C)65x10 ⁻⁶ K ⁻¹ ISO 11359-2Vicat softening temperature B12096°CISO 306Heat deflection temperature HDT-A86°CISO 75-2	Charpy Impact, notched -23°C	13	kJ/m ²	ISO 179-1/1eA
Ball intendation hardness* 77 MPa ISO 2039 Thermal properties Linear coefficient of thermal expansion (20-70 °C) 65x10 ⁻⁶ K ⁻¹ ISO 11359-2 Vicat softening temperature B120 96 °C ISO 306 Heat deflection temperature HDT-A 86 °C ISO 75-2	Charpy Impact, notched -30°C	11	kJ/m ²	ISO 179-1/1eA
Thermal properties Linear coefficient of thermal expansion (20-70 °C) 65x10 ⁻⁶ K ⁻¹ ISO 11359-2 Vicat softening temperature B120 96 °C ISO 306 Heat deflection temperature HDT-A 86 °C ISO 75-2	Charpy Impact, notched -40°C	10	kJ/m ²	ISO 179-1/1eA
Linear coefficient of thermal expansion (20-70 °C)65x10-6K-1ISO 11359-2Vicat softening temperature B12096°CISO 306Heat deflection temperature HDT-A86°CISO 75-2	Ball intendation hardness*	77	MPa	ISO 2039
Vicat softening temperature B12096°CISO 306Heat deflection temperature HDT-A86°CISO 75-2	Thermal properties			
Heat deflection temperature HDT-A86°CISO 75-2	Linear coefficient of thermal expansion (20-70 °C)	65x10 ⁻⁶	K-1	ISO 11359-2
	Vicat softening temperature B120	96	°C	ISO 306
Mould shrinkage 0,6 - 0,7 % ISO 294-4	Heat deflection temperature HDT-A	86	°C	ISO 75-2
	Mould shrinkage	0,6 - 0,7	%	ISO 294-4

* Value based on information given from resin supplier.

Properties reported here are typical values. Arla Plast makes no representation that the material in any particular shipment will conform exactly to the values given. The above information is based upon experience and given in good faith. Due to many factors which are outside our knowledge and control, no warranty is given or is to be implied with respect to such information. Detailed product specification and technical manual/information is available on request.

