

The ABMcomposite technology offers bio-based and biodegradable high-performance ArcBiox™ compounds, which can replace oil-based plastics, such as PE, PP, ABS, PS and glass-reinforced PA, PP, PC and PBT.

## ArcBiox™ B-series



### Key features

- Biopolyester based injection moulding grades with a **bio-content of 60-75%**
- Suitable for food contact applications
- Excellent film hinge properties e.g. for flip top closures
- Compostable (EN-13432/Industrial compost)
- Alternative for PP and PE

### Applications

Caps & closures, jars, boxes, containers

Property, Test Condition	Standard	Unit	ArcBioX™ B-series Biopolyester based ArcBioX™-grades	
			B2008 (XB0013 <sup>2)</sup> )	B2011 (XB0016 <sup>2)</sup> )
<b>Mechanical Properties</b>				
Flexural Strength, 23 °C	ISO 178	MPa	65	50
Flexural Modulus, 23 °C	ISO 178	MPa	1850	1000
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m <sup>2</sup>	7	8
Izod Unnotched, 23 °C	ISO 180/U	kJ/m <sup>2</sup>	NB	NB
Charpy Notched Impact Strength, 23 °C / -30 °C	ISO 179/1eA	kJ/m <sup>2</sup>	7 / 3	9 / 4
Charpy Unnotched, 23 °C / -30 °C	ISO 179/1eU	kJ/m <sup>2</sup>	NB / 70	NB / NB
Tensile Stress at Yield, 23 °C	ISO 527	MPa	38	38
Tensile Strain at Yield, 23 °C	ISO 527	%	5	12
Tensile Stress at Break, 23 °C	ISO 527	MPa	32	33
Tensile Strain at Break, 23 °C	ISO 527	%	>100	>12
Tensile Modulus	ISO 527	MPa	1900	1030
Ball Indentation Hardness	ISO 2039-1	N/mm <sup>2</sup>	120 / HB 358	101 / HB 358
<b>Thermal Properties</b>				
Vicat Softening Temperature VST/B/50 (50N, 50°C/h)	ISO 306	°C	67	92
Heat Deflection Temperature A; (1.8 MPa)	ISO 75	°C	48	50
Heat Deflection Temperature B; (0.45 MPa)	ISO 75	°C	53	70
<b>Other Properties</b>				
Density	ISO 1183	g/cm <sup>3</sup>	1,25	1,25
Melt Flow Rate [190 °C & 2.16 kg / 200 °C & 5 kg]	ISO 1133	g/10 min	10 / 37	18 / 57
Linear Mould Shrinkage*	ISO 294-4	%	0,7	0,8
Biocontent			≈75%	≈60%
Food approval**			Yes	Yes
Compostability***	EN 13432		Yes	Yes

The properties stated above are not for specification purposes.

Values have been measured with samples produced with mould temperature 30°C if not otherwise stated

\* Shrinkage value is measured from test part (4x70x150mm) that is moulded at 30°C mould temperature.

\*\* Please contact your ABM Sales or Technical representative for further information

\*\*\* Grades are manufactured from certified compostable plastics according to the EN 13432 standard

<sup>2)</sup> An old grade name

## ABM -World's strongest biodegradable composite materials

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