

# BARLO<sup>®</sup> XT

SOFT TONE

Technische Produktinformation



## **BARLO XT SOFT TONE**

### **1. PRODUCT IDENTIFICATION**

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BARLO XT is the brand name for extruded Polymethyl methacrylate sheets from Barlo Plastics.

BARLO XT 'soft tone' is a standard Barlo XT grade with double-sided mat finish the finish glazing being achieved by a special type of co-extruded lamination applied on both sides of the sheets. Owing to its outstanding properties, BARLO XT 'soft tone' offers a wide range of creative possibilities for both building and industrial glazing, decoration, lighting and advertising...

### **2. CHARACTERISTICS**

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Compared to BARLO XT, BARLO XT 'soft tone' is perfectly appropriate for display applications, its mat finish characteristics being particularly suitable to increase the light scatter. As reflective effects must be avoided with display and advertising sign applications, both covered or glass printed pictures consequently show to their best advantage. The mechanical properties still cope with the well-known quality of Barlo XT grades

### **3. APPLICATIONS**

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- Decorative housing equipment
- Interior decoration
- Information signs
- Displays
- Showcases
- Shop fittings
- Advertising signs
- Company-applicable advertising materials

#### 4. FABRICATION AND FINISHING TECHNIQUES

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Barlo XT 'soft tone' sheets are easy to handle and can be machined by sawing, drilling, milling, mechanical polishing, thermoforming, hot bending and bonding process.

More detailed information on these items can be found in the "USER GUIDE", available on request.

##### **Some recommendations:**

##### **Bonding:**

Bonding techniques to be applied to BARLO XT 'soft tone' sheets are the same as used for Barlo XT standard grades. That implies the application of bonding agents of the same kind.

Compared to Barlo XT, care must be taken that the partial dissolving time of solvents and solvent adhesives should be slightly longer.

The bonding agent shall not contact the mat finish; the mat glazing will disappear / decrease otherwise.

##### **Polishing:**

Edge polishing of BARLO XT 'soft tone' can be done by mechanical polishing and polish-milling procedures, these methods will produce excellent results.

Flame polishing is not recommended, because the high temperature of the flame may decrease the 'soft tone' effect in the area close to the polished edge of the sheet.

##### **Printing:**

Barlo XT 'soft tone' is as easy to print as Barlo XT standard grades; no special pre-treatment is required to achieve outstanding print results.

##### **Thermoforming:**

BARLO XT 'soft tone' can be thermoformed in the same way as standard products without adverse effect on the mat finish. Recommended forming temperatures shall be 160 – 180°C depending on the moulded part and procedures applied.

The mat glazing is preserved after thermoforming; only extreme drawing conditions are susceptible to slightly affect the mat finish.

## 5. TECHNICAL INFORMATION

BARLO XT 'soft tone' shows the same mechanical properties as Barlo XT standard grades. Varying optical properties, however, are due to its mat finish and are shown in the table below.

PROPERTY	METHOD	UNIT	BARLO XT
<b>GENERAL PROPERTIES</b>			<b>SOFT TONE</b>
Density	ISO 1183	g/cm <sup>3</sup>	1,19
Forming temperature – air pressure	-	°C	140-160
Forming temperature – vacuum			160-190
Moulding shrinkage	-	%	0.5-0.8
<b>MECHANICAL PROPERTIES</b>			
Tensile strength	ISO 527	MPa	70
Elongation	ISO 527	%	4
Modulus of elasticity in extension	ISO 527	MPa	3200
Flexural strength	ISO 178	MPa	115
Impact strength Charpy unnotched	ISO 179	KJ/m <sup>2</sup>	17
Impact strength Charpy notched	ISO 179	KJ/m <sup>2</sup>	2
<b>THERMAL PROPERTIES</b>			
Vicat temperature (B 50)	ISO 306	°C	104
Specific heat capacity	IEC 1006	J/gK	1.47
Linear thermal expansion	DIN 53752	K <sup>-1</sup> x10 <sup>-5</sup>	7
Thermal conductivity	DIN 52612	W/mK	0.19
Service temperature- continuous use	-	°C	70
Max. temperature short term use	-	°C	90
<b>OPTICAL PROPERTIES</b>			
Light transmission	DIN 5036-3	%	88
Gloss value	DIN 67530	-	< 35
<p>The gloss value of Barlo XT standard grades is &gt;100. The higher the determined non-dimensional value, the stronger the surface brilliance of the examined work piece</p>			