

# FLEX BLK 10

## Production Flexible

Flexible material for the production of exceptionally durable parts

*Simulating black molded polypropylene, the Flex Blk 10 is a robust material with high elongation at break.*



### Applications

- **Outstanding flexibility and accuracy**
- **Versatile – suitable for a wide range of applications**
- **High notched Izod impact strength – did not break in testing**

### Applications

- Functional assemblies and prototypes
  - Automotive styling parts
  - Consumer goods and electronic components
  - Snap fit assemblies
  - Containers and enclosures
- Master patterns for RTV/silicone moulding
- Replacement of short-run cast urethane production parts
- Concept and marketing models



### Physical Properties

Colour	Black
Type	Polypropylene

### Liquid Material

Solid Density (@ 25°C)	1.15g/cm <sup>3</sup>
Layer Thickness (mm)	0.10

### Mechanical Properties

		TEST/ISO
Tensile Strength, Ultimate (MPa)	<b>46</b>	ASTM D638
Tensile Strength, at Yield (MPa)	<b>37</b>	
Tensile Modulus (MPa)	<b>1400</b>	
Elongation at Break (%)	<b>104</b>	
Elongation at Yield (%)	<b>6</b>	
Flexural Strength (MPa)	<b>37</b>	ASTM D790
Flexural Modulus (MPa)	<b>990</b>	
Notched Izod Impact Strength (J/m)	<b>55</b>	ASTM D256
Unnotched Izod Impact Strength (J/m)	<b>Did not break</b>	ASTM D4812
Heat Deflection Temperature (°C)		ASTM D648
@ 0.45 MPa	<b>52</b>	
@ 1.82 MPa	<b>43</b>	
Co-efficient of Thermal Expansion (ppm/°C)		ASTM E831
<T <sub>g</sub>	<b>91</b>	
>T <sub>g</sub>	<b>138</b>	
Glass Transition (T <sub>g</sub> )	<b>18</b>	ASTM E1640
Shore Hardness	<b>76D</b>	ASTM D2240

Water Absorption (%)	<b>1.40</b>	ASTM D570
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