Ultradur® B6550 LNX
A New Solution for High Speed Extrusion of Microtubes for FOC Cables

New Product Showcase

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BASF Product Portfolio
for Fiber Optic Cable Jacketing

**Ultradur B6550 L**
- Modified with a lubricant to provide excellent feeding behavior on all kind of extruders

**Ultradur® B 6550 LN**
- Modified with a lubricant and a nucleating agent.
- Excellent feeding behavior and faster speed of crystallization. Higher crystallinity will cause higher stiffness and a more opaque color of the tubes.

**Ultradur® B 6550 LNX**
- Specifically for thin FOC buffer tubes = microtubes \( \leq 1.4 \) mm

**Ultradur® B 6550 LNX with addition of Flame Retardant**
- Successful trials completed for dry FOC tubes
Ultradur® B 6550 LNX

- Specifically developed for FOC microtubes of ≤ 1.4 mm
- Improved mechanical properties at low thicknesses
- High molecular weight and high viscosity
- Excellent feeding behavior and processability with high melt stability
- Excellent chemical resistance
- Low coefficient of thermal expansion and
- Very low water absorption → Very good dimensional stability
- High stiffness and hardness
Ultradur B 6550 LNX
Changed crystallization kinetics

![Graph showing crystallization kinetics](image-url)
Tensile test

Pressure test (crush resistance)

$\sigma_{\text{max at yield}}$

$F_{\text{max}}$

$F @ 0.4 \text{ mm}$
Ultradur B 6550 LNX
Pressure test

Tube size 1,4 /1,1 mm, jelly filled

[Graph showing deformation vs. force with two curves: green for Ultradur B6550 LN and blue for Ultradur B6550 LNX]
Ultradur B 6550 LNX
Tensile test

Tube size 1,3 /1,08 mm, jelly filled

[Graph showing stress vs. strain for Ultradur B6550 LNX and Ultradur B6550 LN]
Ultradur B 6550 LNX
Results on microtubes 1,4 / 1,1 mm

<table>
<thead>
<tr>
<th>Ultradur B 6550</th>
<th>LN</th>
<th>LNX</th>
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</thead>
<tbody>
<tr>
<td>Tensile strength @ yield [MPa]</td>
<td>25</td>
<td>31</td>
</tr>
<tr>
<td>Elongation @ break [%]</td>
<td>&gt;400</td>
<td>&gt;400</td>
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<tr>
<td>Crush resistance [N/dm]</td>
<td>115</td>
<td>165</td>
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</tbody>
</table>

Superior mechanical and processing performance proven by trials at
- Machine suppliers Maillefer and Rosendahl Nextrom
- Some European customers
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