

# Gentle Power Bleach™ on regenerated cellulosic fibres and blends sensitive to temperature and pH

**Sustainable enzymatic peroxide bleaching at low temperature and neutral pH in discontinuous application**



## Gentle and mild conditions for powerful bleaching

### ONE recipe for ALL fibres sensitive to temperature and pH

Regenerated cellulosic fibres such as viscose, (micro)-modal, lyocell, bamboo and its blends with cotton, elastane, acetate, acrylic, silk, wool.

Similar bleaching recipe for all fibres and blends resulting in simple recipe management with reduced sources of errors.

### Perfect preparation

Even after bleaching at 65 °C and at neutral pH the fibres are perfectly prepared for dyeing all shades. Excellent full white levels can be obtained on regenerated cellulosic fibres. Additional benefits are extremely good fibre protection, no chemical damage on cellulosic fibres and maintenance of the characteristic elastane properties.

### Outstanding crease recovery

Extremely good crease recovery and fabric properties such as burst strength and stretch. Soft and bulky handle.

### Brilliant colors

Bright and deep shades with excellent fastness properties.

### Process optimization: reduced consumption

Energy and water savings due to very low bleaching and wash-off temperature and less rinsing. No neutralizing required. Savings in softening and lubrication.

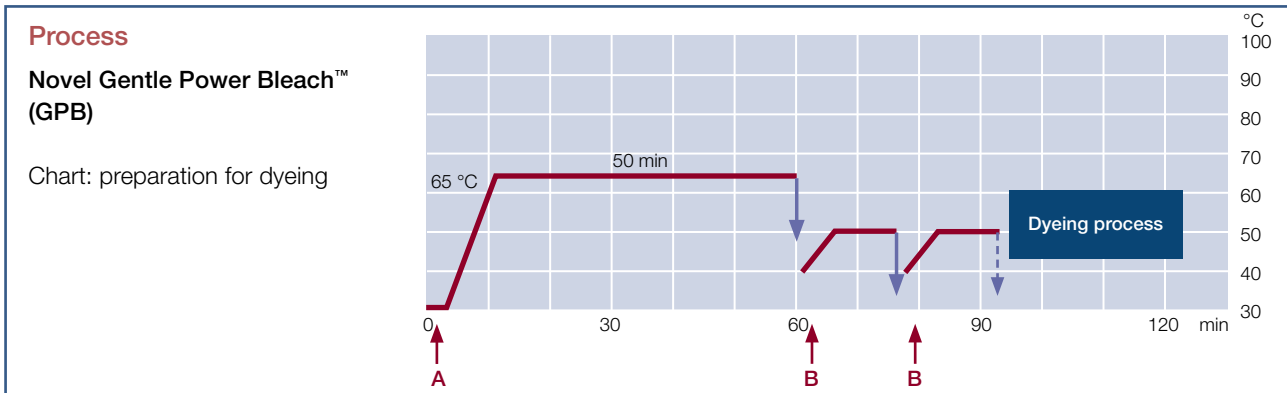
### Process optimization: improved reproducibility

Lower risk of crease marking for piece goods and garments. No danger of residual alkali, the main cause of faulty dyeings. Improved right first time production.

### Responsible technology

No harsh chemicals such as caustic soda applied. Reduced salt load in the effluent. Considerable energy and water savings. All Gentle Power Bleach™ auxiliaries are free of APEO and AOX.

**Gentle Power Bleach™, our contribution to a more sustainable textile industry.**



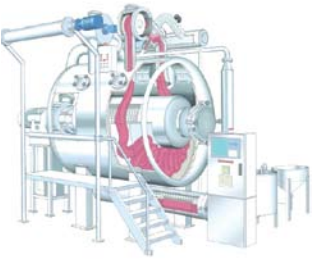
**Recipe**

Application: Exhaust  
 Fibres: CV, CMD, CLY, bamboo and its blends with CO, EL, CA, PAN, S, WO  
 Makeup: knitgood, woven, garment and yarn  
 Machine: Closed equipment e. g.: Jet, overflow, jig, package dyeing machine ...

		Low liquor ratio 4:1 – 6:1	High liquor ratio 8:1 – 12:1
<b>A</b>	<b>CLARITE® LTC</b>	g/l 2.0	1.5
	<b>INVATEX® LAB or soda ash</b>	g/l 7.5 or 3.0	5.0 or 2.0
	<b>INVATEX® LTA</b>	g/l 4.5	3.0
	<b>H<sub>2</sub>O<sub>2</sub> 35%</b>	ml/l 9.0	6.0
	<b>INVAZYME® LTE</b>	g/l 1.5	1.0
<b>B</b>	<b>INVAZYME® CAT (2x)</b>	g/l 0.7	0.5

Process condition: bleaching 50 min at 65 °C, draining, rinsing 2x10 min at 50 °C.  
 Woven and terry towel preparation: add INVAZYME® ADC for starch desizing.

**Bulk example**



CV/EL (94/6) knit	Degree of whiteness <i>Berger</i>	Degree of polymetrisation <i>DP value</i>	<b>Highlights</b>
Grey material heatsetting 20 min 170°C	32.9	386	<ul style="list-style-type: none"> <li>• <i>Fantastic handle</i></li> <li>• <i>Brilliant and intense shades</i></li> </ul>
<b>Gentle Power Bleach™</b>	70.1	371	<ul style="list-style-type: none"> <li>• <i>Great elasticity and stretch</i></li> </ul>

Degree of whiteness also sufficient for full white with UVITEX® brighteners

**Product overview**

**CLARITE® LTC** Combination product for the low temperature Gentle Power Bleach™ with excellent wetting, detergent and dispersing properties

**INVATEX® LTA** Agent to assist and boost the peroxide reaction in the Gentle Power Bleach™

**INVAZYME® LTE** Enzyme for the Gentle Power Bleach™ to catalyse the peroxide bleach in combination with INVATEX® LTA

**INVATEX® LAB** Liquid buffer system for optimum pH setting and regulating

**INVAZYME® CAT** Stabilized, liquid catalase-enzyme to remove residual peroxide after discontinuous peroxide bleaching

**UVITEX®** Range of fluorescent whitening agents for all fibres