


TECHNICAL INFORMATION

AP-NYLON® Materials

AP-NYLON® Caprolactam (Flakes)

Product Description and Application	<p>The anionic polymerization of ϵ-caprolactam is inhibited already by small amounts of moisture; therefore one has to work with moisture-free raw materials and under moisture proof conditions.</p> <p>Due to its reduced moisture content against standard grade caprolactam AP-NYLON® Caprolactam is specifically used as raw material in the anionic polymerization for polyamide 6.</p> <p>It is used also in applications where reduced moisture content is necessary or improved flowability of the flakes is the key factor for the product handling, because AP-NYLON® Caprolactam is especially moisture-proof packed which leads to a noticeable reduced tendency to agglomeration compared to standard grade caprolactam.</p>																												
Typical Properties	<table><tr><td>Appearance</td><td>solid, white, hygroscopic and crystalline flakes, low-dust</td></tr><tr><td>Solidification temperature (dry)</td><td>approx. 69 °C (ISO 7060)</td></tr><tr><td>Moisture content</td><td>max. 0.01 % (m/m)</td></tr><tr><td>Content of volatile bases</td><td>max. 0.5 meq/kg (ISO 8661)</td></tr><tr><td>Permanganate index (3 % solution)</td><td>min. 10,000 s</td></tr><tr><td>Color (50 % (m/m) aqueous solution)</td><td>max. 5 APHA (ISO 8112)</td></tr><tr><td>Content of free bases</td><td>max 0.1 meq/kg</td></tr><tr><td>Content of free acids</td><td>max. 0.05 meq/kg</td></tr><tr><td>Absorption at 290 nm</td><td>max. 0.05 (ISO 7059)</td></tr><tr><td>Cyclohexanone oxime content</td><td>max. 5 mg/kg</td></tr><tr><td>Iron content</td><td>max 0.5 mg/kg</td></tr><tr><td>Ash content</td><td>max. 10 mg/kg</td></tr><tr><td>Purity caprolactam (dry)</td><td>min. 99.9 % (m/m)</td></tr><tr><td>Bulk density</td><td>600 – 700 kg/m³</td></tr></table>	Appearance	solid, white, hygroscopic and crystalline flakes, low-dust	Solidification temperature (dry)	approx. 69 °C (ISO 7060)	Moisture content	max. 0.01 % (m/m)	Content of volatile bases	max. 0.5 meq/kg (ISO 8661)	Permanganate index (3 % solution)	min. 10,000 s	Color (50 % (m/m) aqueous solution)	max. 5 APHA (ISO 8112)	Content of free bases	max 0.1 meq/kg	Content of free acids	max. 0.05 meq/kg	Absorption at 290 nm	max. 0.05 (ISO 7059)	Cyclohexanone oxime content	max. 5 mg/kg	Iron content	max 0.5 mg/kg	Ash content	max. 10 mg/kg	Purity caprolactam (dry)	min. 99.9 % (m/m)	Bulk density	600 – 700 kg/m ³
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Labelling	<p>AP-NYLON® Caprolactam has to be labeled in accordance with Annex I of directive 67/548/EEC and its amendments and adaptations.</p> <p>Regulatory information:</p> <div style="display: flex; align-items: center;"><div style="text-align: center;"></div><div style="margin-left: 10px;"><p>Danger symbol: X_n</p><p>Hazard characteristics: harmful</p><p>R - phrases : R 20/22, R 36/37/38</p></div></div> <p>Please note the corresponding and valid up-to-date material safety data sheet according to 91/155/EEC.</p>																												

Packing	<p>25 kg net laminated bag (one layer, polyamide – aluminum – polyethylene) with labyrinth valve and edge welded.</p> <p>40 bags on wooden pallet (1380 mm x 1130 mm, heat treated, ISPM 15) with PP-board, shrink wrapped, 1000 kgs net respectively</p> <p>50 bags on wooden pallet (1380 mm x 1130 mm, heat treated, ISPM 15) with PP-board, shrink wrapped, 1250 kgs net</p>
Storage and Shelf Life	<p>If kept properly in unopened bags (dry, 25°C) the shelf life is at least 12 months.</p> <p>Protect against heat and moisture.</p> <p>After taking product out of the bag, close it again tight, best under inert gas atmosphere.</p>
Transport	<p>HS-Code 29 33 71 00</p> <p>For further information please refer to the valid up-to-date Material safety data sheet according to 91/155/EEC</p>
Additional Information	<p>In addition to AP-NYLON® Caprolactam for anionic polymerization we offer the corresponding additives to produce cast nylon parts (BRUGGOLEN® C-series) and NYRIM® (Reaction Injection Molding).</p> <p>Additionally we offer technical support in cast nylon and NYRIM® production.</p> <p>For specific applications especially tailored BRUGGOLEN® - additives can be offered.</p> <p>For more detailed information please contact our technical service department under our phone number ++49 (0) 7131-1575 – 179 or see our website http://www.brueggemann.com.</p>
QM - System	