



AP- Nylon Materials

Application sheet 13

Nyrim® Rolls for material handling

Brüggemann Chemical provides raw materials for three distinct families of **AP-Nylon**

(polyamides produced by **Anionic Polymerization**) used in a wide range of applications.

Mechanical properties of these AP-Nylons extend from thermoplastic polyamides into rubber-like elastomeric materials.

AP Caprolactam along with different catalyst systems (**Bruggolen® C**) leads to standard cast Nylon 6.

Nyrim® is elastomer toughened, recyclable, thermoplastic Nylon 6 for industrial Reaction Injection Molding (RIM), Injection Molding and Rotomolding applications. Nyrim® usually contains 10-40% built-in elastomer, depending on the specific performance needs.

The stiffness / toughness combination of Nylon-6 and elastomer gives excellent impact resistance, wear resistance and repetitive load (fatigue) endurance.

Nyrim® can be selectively reinforced with glass fiber or glass mats and can also be filled with mineral fillers.

Star-Rim is a toughened Nylon suitable for RIM processing. It can also be reinforced with glass or filled with mineral fillers.

RIM processing is the preferred method to manufacture large, complex or thick parts. RIM processing allows for large design flexibility.

Pressures are lower than injection molding pressures, resulting in lower mold and manufacturing costs.

Contact us:

Brüggemann Chemical
Salzstrasse 123-131
74076 Heilbronn
Germany
☎ +49 7131 1575 0
www.nyrim.com
www.brueggemann.com



Nyrim outperforms aluminium in this very demanding transportation system for airport logistics. Loss of grip between aluminium rolls and container bottoms causes damage to the containers. Therefore a broad range of plastic materials was tested as a replacement of these aluminium rolls.

Friction and abrasion resistance between roll and container bottom are prime requirements. But also toughness, noise reduction and UV stability are high on the list of demands.

Nyrim outperforms other plastic material in all these requirements, and this over a broad temperature range from -50C to 80C.



Important features for this application

Physical properties features

- High impact resistance at -50C and at 80C
- Low friction coefficient
- High abrasion resistance
- UV stable
- Withstands galvanization treatment

RIM design features

- Efficient production of large series through multi cavity tooling
- Economical molding of thick parts