

AP - Nylon Materials

Application sheet 02

Nyrim® Anti tank ammunition packing

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.

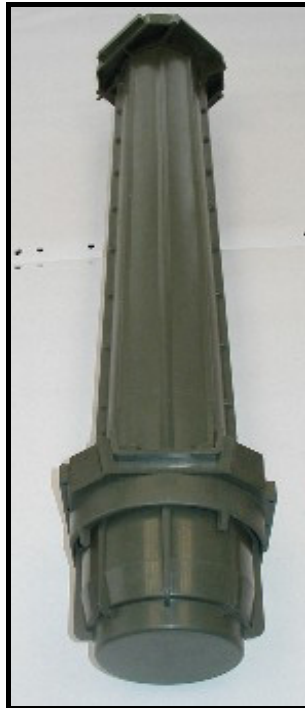
Star-Rim is a toughened Nylon suitable for RIM processing. It can also be reinforced with glass or filled with mineral fillers.

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

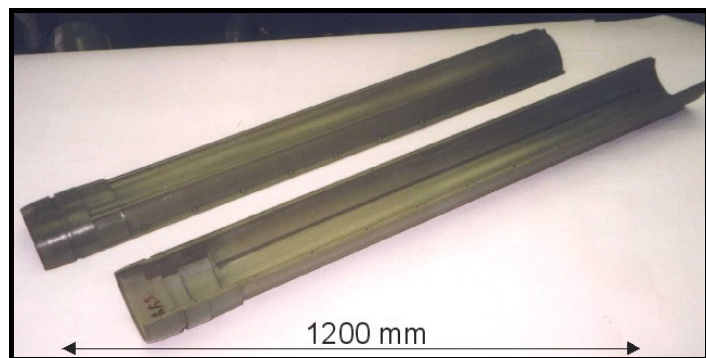


This packing protects sensitive anti-tank ammunition during handling.

Extreme impact strength and abrasion resistance at -40C are required for this part. This is the main reason why Nyrim material was chosen.

Because of the large part size (1.2 m length), and the need for lugs and ribs to be molded-in, conventional injection molding techniques were not possible for this cover.

The component comprises five different parts. All parts are made in one multi cavity tool, which improves significantly production economy.



Important features for this application

Physical properties features

- High impact strength at ambient temperatures and at -40 C
- High abrasion resistance

RIM design features

- Economical production because 5 different part components molded in 1 mould
- Lugs and ribs can be easily designed in