

Conveyor belts for food processing

Modular and Flat Belts for the Food Processing Industry



Modular conveyor belts can be made with rigid grades of Kynar® PVDF and Rilsan® polyamides. Both of these resins have extreme properties including chemical, impact, abrasion and heat/cold resistance. Kynar® PVDF has excellent resistance against harsh chemicals used in the food industry, especially acids. Rilsan® polyamides are light weight and optionally biobased with exceptional toughness. When alternative lower quality plastics start to degrade, Kynar® PVDF and Rilsan® polyamides exhibit long-lasting performance for modular conveyor belts in the food processing industry.

Flat belts constructed with Pebax® elastomers will inherit its light weight and flexible properties, while being very easy to process. Pebax® elastomers also have low energy loss, making them excellent candidates for food processing belts in complex mechanical systems. Due to good chemical resistance and tremendous toughness, flat conveyor belts made with this thermoplastic elastomer can provide reliable performance in a wide range of temperatures.



MATERIALS	Weight Loss (mg)
Kynar® PVDF Homopolymer	5-10
HDPE	25
304 Stainless Steel	50
Mild Steel	100-300

(Taber Ring CS-10 mg/1000 cycles using a 1 kg load)

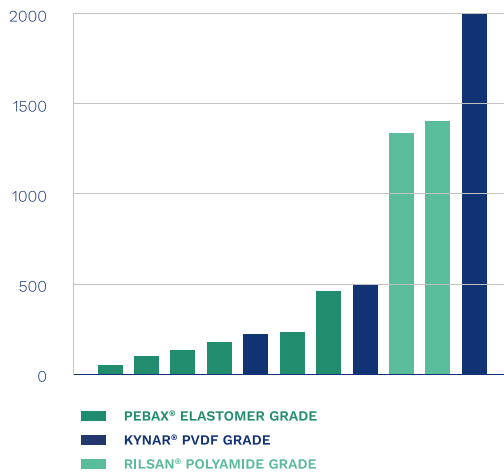
→ The properties of Kynar® PVDF allow for both thermal and chemical sanitization at high temperatures in chemicals including but not limited to peracetic acid, ozone and sodium hypochlorite.

→ Kynar® PVDF can be used at pH levels from <1 to 13.5 with good mechanical property retention.

→ Kynar® PVDF has low extractables, which allows for safer handling of proteins, carbohydrates, mineral salts, oils, and other food-based compounds and presents no taste issues.

PEBAX® ELASTOMERS: FLEXIBILITY FOR ANY SITUATION

Tensile Modulus (MPa)
of Select Technical Polymer Grades



→ **Pebax® elastomers are 20% lighter** than TPUs allowing for lighter overall systems

→ **Consistent performance** at varying temperatures

→ **Pebax® elastomers enable design flexibility** with properties such as:

- **Weldability**
- **Colorability**
- **Ease of Processing**

Arkema's dedicated business and technical community can assist in choosing grades of Kynar®, Pebax®, and Rilsan® resins.



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