



Pentapharm® LiquiGuard™ films

Klöckner Pentaplast introduces LiquiGuard™, the latest inventive addition to the Pentapharm® line of pharmaceutical blister films.

Unit-dose blisters are the globally preferred packaging format for pharmaceuticals, offering enhanced product shelf life across all climate zones, improved convenience and portability, and support for brand awareness, anti-counterfeiting and patient adherence. Until now, the limitations of blister films to withstand hot-fill liquids and other emerging dosage forms presented too great a technical challenge for blister packaging to be a viable option for nutraceuticals and medications beyond solid oral dose formulations.

With Pentapharm® LiquiGuard™, hot and cold-fill liquids and semi-solids can be formed and packaged directly in a crystal-clear, thermostable laminate film that protects your sensitive products from package leaching and moisture gain or loss.

Benefits:

- Autoclavable for sterile applications
- Customizable high moisture barrier—prevents moisture loss as well as gain
- Excellent deep-draw properties for complex blister geometries
- High heat stability (T_g of contact layer 120°C)
- High slip for quick release and increased productivity
- Low leachability and extractability, with excellent odor and flavor retention
- One-stage forming and packaging of hot-fill products—no separate forming mold or waxes needed
- Visual clarity for enhanced shelf appeal

Applications:

Pentapharm® LiquiGuard™ technology is ideal for:

- Chewables
- Formulations sensitive to flavor or odor loss
- Nutraceuticals
- Pharmaceuticals
- Unit dose liquids
- Veterinary

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