HORDAMER PE 02

Anti-caking additive for thermoplastic pellets

Soft thermoplastics such as TPE and TPU are used in the form of pellets, which are often packed in bags. Under pressure and heat, they show negative side effects such as caking, compacting, or sintering. This results in handling problems for vacuum conveying and final molding applications.

However, these negative effects can be prevented by using the wax additive HORDAMER PE 02 in the manufacture of soft thermoplastics.

Heat and pressure cause caking

Pellets immediately after extrusion

Pellets after 1 h storage at 70 °C in an oven

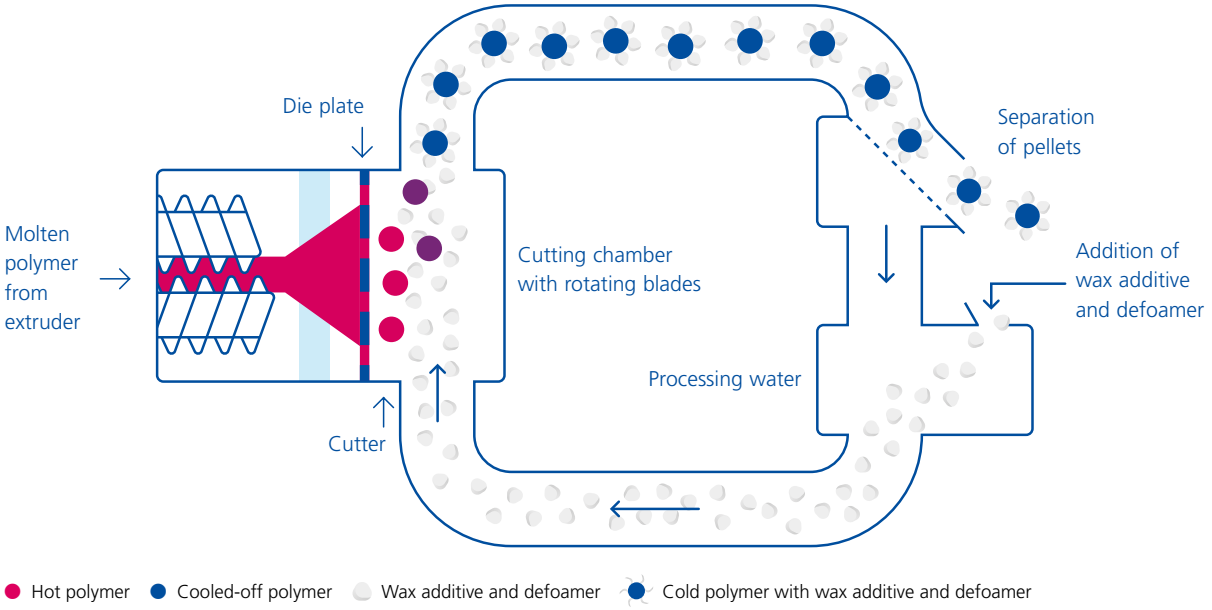
Benefits

- A thin layer of wax particles coats the pellet's surface
- Anti-caking during storage and transportation up to temperatures of 70 °C
- No additional handling step – use with existing bath equipment
- Cost-effective method to prevent caking
- No negative influence on viscosity behavior (MVR)
- Can replace most dusting operations
- Suitable for all types of soft thermoplastics
- No migration in final parts

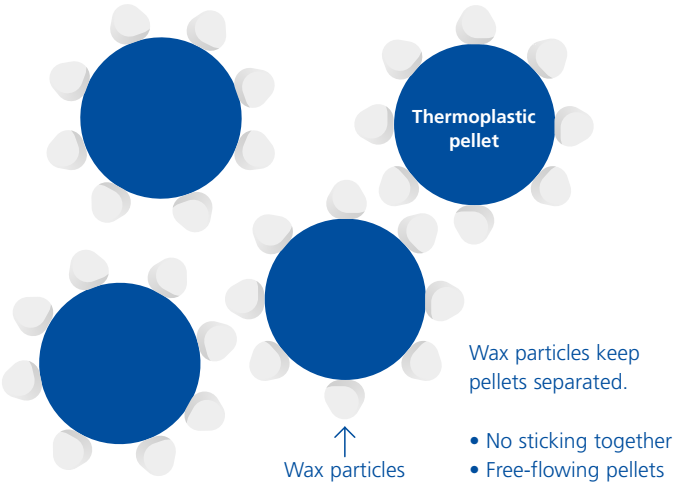
Technical data

- Primary polyethylene dispersion
- Carrier: water
- Emulsifier system: anionic
- Melting point (wax content): 95 °C
- Non-volatile matter (60 min, 125 °C): 40 %

Underwater pelletizing – schematic diagram



Mode of action of HORDAMER PE 02



The wax additive HORDAMER PE 02, like other additives such as defoamers, has to be added to the water tank. The wax particles cover the surface of the thermoplastic pellets and keep them separated even if temperature and pressure increase:

- **No sticking together**
- **Free-flowing pellets**

To be most effective, the melting temperature of the wax needs to be higher than the maximum transportation and handling temperature.

Additive recommendations in the process of underwater pelletizing

Additives	Description	Function	Thermoplastics		Dosage
			PE, PP, TPE-S, TPE-U, TPE-A, TPE-V, TPE-O	ABS, PA, PVC	As supplied (%)
HORDAMER PE 02	Wax additive	Anti-caking	●	○	0.2–5
BYK-016	Polymer-based defoamer	Defoaming	●	●	0.05–0.1
BYK-023	Silicone-based defoamer	Defoaming	●	●	0.05–0.1

● Especially recommended ○ Recommended

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