

Public consultation on PFAS restriction

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Background

Hardick is a producer of PTFE coated glass and aramid conveyor belts, sheets and tapes. Our products are mainly used in high temperature and non-stick production processes. We employ about 50 people and supply our products to customers all over the world, with a focus on Netherlands, Germany, Belgium and USA.

Why PTFE

PTFE coating on our products assures the following:

- High temperature resistant
- Low temperature resistant
- Non-stick
- Low friction
- Inert to chemicals and oils
- Stable belts
- Strong joints
- Thin products

Alternatives

A difference has to be made between alternatives for our conveyor belts and for sheets and tapes.

Conveyor belts

Steel conveyorbelts can replace PTFE conveyor belts in several applications, but will have serious disadvantages for efficiency, costs, environment and energy use:

Application	Disadvantages of steel belt against PTFE conveyor belt
Printing industry	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven Higher energy use in propulsing the steel belt No non-stick, possible one-time use of release materials
Can industry	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven Higher energy use in propulsing the steel belt Vibration of bet leads to falling over of tin cans, resulting in extra waste and lower efficiency
Food industry	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven Higher energy use in propulsing the steel belt No non-stick, possible one-time use of release materials High use of fats and oils for release resulting in fattier products
Non woven industry	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven

	Higher energy use in propulsing the steel belt No non-stick, possible one-time use of release materials like silicone paper leading to increased wastes Pollution of the belts leading to short life times of heavy belts
Rubber extrusion	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use in propulsing the steel belt No non-stick, possible one-time use of release materials Water cooling needed leading to high use and pollution of water Pollution of the belts leading to short life times of heavy belts
Matts industry	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven Higher energy use in propulsing the steel belt No structure from belts embossed onto product No degassing of product No non-stick, possible one-time use of release materials Pollution of the belts leading to short life times of heavy belts
Carpet industry	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven Higher energy use in propulsing the steel belt No structure from belts embossed onto product No degassing of product No non-stick, possible one-time use of release materials Pollution of the belts leading to short life times of heavy belts
Flooring industry	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven Higher energy use in propulsing the steel belt No structure from belts embossed onto product No degassing of product No non-stick, possible one-time use of release materials Pollution of the belts leading to short life times of heavy belts
Wood industry	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven Higher energy use in propulsing the steel belt
Textile industry	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven Higher energy use in propulsing the steel belt No non-stick, possible one-time use of release materials like silicone paper leading to increased wastes
Automotive industry	Very high investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven Higher energy use in propulsing the steel belt Low life-time
Plastics industry	Very high investment for ovens

	Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven Higher energy use in propulsing the steel belt No non-stick, possible one-time use of release materials Pollution of the belts leading to short life times of heavy belts
Rolling road	Heavy windtunnel construction Easily damaged
Packaging Industry	Higher investment for ovens Heavy oven construction (higher use of materials) Higher energy use because steel belt takes more heat out of the oven

Other alternative materials for conveyor belts

Application	Type of alternative	Disadvantages
Food Industry	Silicone belts PVC belts	Thicker belts leading to lower heat conductivity through the belt resulting in lower output. Less easy to clean, increased hygiene risks
Rubber Extrusion	PVC belts	No non-stick Not resistant to required high temperatures
Vacuum Drying	PE belts	Pollution Not resistant to required temperatures
Rolling road	Plastic belts	Not resistant to high temperature caused by friction Abrasion of plastic leads to flammable and possible carcinogenic dust Abrasion leads to differences in thickness in the belt
Packaging Industry	Silicone covers	Lower lifetime Higher costs

For other industries or applications no alternatives are known to us at the moment:

Solar Industry	No known alternatives
Composite Industry	No known alternatives

Sheets and fabrics

In many applications not a belt is required but sheets, tapes or just the fabric is required.

Application	Type of alternative	Disadvantages
Solar Industry	No known alternatives	
Tank seals	Rubber	Far lower life time, leading to higher costs and/or higher risk in storage of oil and chemicals
Packaging Industry	Other method of production and plastic	Different layers of materials leading to difficulties in recycling More expensive product
Paper Industry	No known alternatives	
Composite Industry	No known alternatives	

