



Iloform™ PN 951 HM

Hot Melt Lubricant

Description

Castrol Iloform™ PN 951 HM is a natural and synthetic ester based hot melt providing optimised drawing and corrosion preventive properties. The product, after application, yields a dry-to-the-touch film, free from heavy metal-free corrosion inhibitors.

Application

Iloform PN 951 HM is a metal forming product designed for processing metal sheet, particularly used as a steel mill applied corrosion preventive lubricant for production of automotive outer skin panels and components. Iloform PN 951 HM has been specifically developed to cope with the latest requirements for the variety of steel coatings used within a modern automotive pressing operation.

Iloform PN 951 HM meets the requirements of the automotive standard VDA 230-213 "Hotmelt" and further complies with the following OEM specifications: AUDI (QP-A 001), BMW (PV 94022A) and VW (QP-A 001). The enhanced lubrication package also allows the use in heavy duty deep drawing operations.

Iloform PN 951 HM is designed to be used as received.

Advantages

- Superior compatibility with e-coatings and adhesives minimises impact on downstream processes
- Reliable temporary protection against corrosion on bare steel sheet metal as well as grey staining and zinc corrosion on zinc coated surfaces
- Strong surface protection against mechanical impacts
- Outstanding lubrication property can eliminate the usage of additional sheet forming oils (Spot-Lubricants). Suitable even for severe cold forming operations within automotive manufacturing processes
- Can be used with state of the art application equipment, with slight modifications even when using the parameters applying thixotropic mill oils or prelubes
- Increased productivity due to very good cleanability, even after aging or temperature exposure of the dry film coating
- Does not interfere with waste water systems as it is free of solid particles or high melting compounds
- Clean working environment supports operator acceptance
- Solvent- and heavy metals-free technology helps improving the environmental profile and reduces waste disposal cost

Typical Characteristics

Description	Test Method	Unit	Value
Appearance	Visual	-	Beige solid paste
Density @ 15 °C	ASTM D4052 / ISO 12185	g/cm ³	0.88
Type of Film	Visual	-	dry waxy
Viscosity @ 60 °C	ASTM D445 / ISO 3104	mm ² /s	18 - 22
Viscosity @ 100 °C	ASTM D445 / ISO 3104	mm ² /s	4.5 - 5.5
Flash Point, COC	ASTM D92 / ISO 2592	°C	> 200
Melting Point	DSC (10°C/min)	°C	40 - 50
Corrosion Protection	DIN EN ISO 6270-2 AHT	cycles	> 20
Water Content	DIN 51 777	%	< 0.05

Subject to usual manufacturing tolerances.

User Advice

Reliable and accurate application of Iloform PN 951 HM is possible by using state of the art equipment (electrostatic, airless, roll-coater, etc.)

Spray application with airless, air-assisted airless and compressed air equipment is possible if heated nozzles are used.

Spraying with compressed air additionally requires pre-heated air.

Handling and application temperature should be above the melting point (> 40°C). The best operating temperature is at 55 – 65°C.

Additional Information

Additives	Ester	Active Sulphur	Inactive Sulphur	Phosphorous	Chlorine	Other
	ü			ü		ü

Storage

To avoid product deterioration always keep the container/drum tightly sealed. Store the product in a cool, dry place away from direct sunlight. Prevent exposure to frost and avoid water ingress. For optimum product stability, it is preferable to store the product indoors between 5°C and 45 °C / 41°F and 113°F.

For more details, please refer the product safety data sheet.

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