



Polymer Processing



360° Spray System for all angle use

FORMULA 1/HT

HIGH TEMPERATURE SILICONE LUBRICANT

Formula 1/HT is a high temperature silicone release agent and lubricant. It has been formulated for moulding and spinneret headplate lubrication, but is effective on a large range of materials and processes. Contains no chlorinated solvents or ozone depleters. With superb release property, it provides improved finish. Formula 1/HT is high heat resistance up to 300°C without crystallisation.

PRODUCT CODES / FILL SIZES



31533 / 400ml

APPLICATIONS

Formula 1/HT contains a special dimethylpolysiloxane-based fluid with increased resistance to weight loss, viscosity change and gelation at temperatures up to 288°C. At this temperature, the product provides resistance to gelation of 5,000 hours continuous and will give a similar resistance at 300°C+ for intermittent periods. At 300°C+ gelation will occur earlier due to the reduced oxidation resistance and tests should be conducted, according to the intended application to determine the optimum period obtained before a full clean-down is required.

When used for the lubrication of the spinneret headplate for the production of synthetic fibres, any slight residue may be cleaned off with a copper blade. The appearance of white crystals on the headplate is caused by the oligomer byproduct of Nylon manufacture and is not caused by the release agent. After continuous use for periods up to 1,200 hours, correct maintenance of the headplate by cleaning in an ultrasonic bath will ensure maximum life of the headplate and reduce downtime caused by hand cleaning.

SPINNERET APPLICATION

The following table is a guide to the lubrication periods normally achieved without gelation.

POLYMER	FINE DENIER	HEAVY DENIER	PERIOD *
Polypropylene	230°C - 240°C	250°C	>10,000 GTH
Nylon 6	260°C	260°C	10,000 GTH
Nylon 66	288°C	288°C	>5,000 GTH
Polyester	290°C - 300°C	290°C - 300°C **	>200 GTH

* GTH = Gelation Time in Hours

** For high tenacity products such as industrial yarns or tyre cords, sometimes a slightly higher temperature is used in the spinneret area than in the pump area of the Spin Beam and thus the gelation period will be more limited.

TEST METHOD

The gelation time of the fluids was determined by heating a 3mm thick layer of fluid in a glass dish of 40mm diameter at 250°C or 300°C in air.

TECHNICAL DATA (WITHOUT PROPELLANT)

Appearance	Colourless to hazy reddish brown liquid
Odour	Negligible
Relative Density	0.866
Pressure @ 25°C	6 Bar
Discharge rate	1.9 g/sec
Temperature range	Operational up to 288°C continuous, 300°C intermittent (see above)
Solubility	Soluble in solvents, insoluble in water
Flammability	Flammable
Flashpoint	Not applicable in sealed aerosol

MATERIALS COMPATIBILITY

OK	-
CAUTION	-
NOT OK	-

STORAGE & SHELF LIFE

The product may be stored at normal ambient temperatures and has a shelf life of not less than 6 years with correct storage. Aerosols should always be stored below 50°C, away from direct heat and naked flame.

HEALTH AND SAFETY

A separate Safety Data Sheet (SDS) according to EC Regulation 73/404/EEC and 648/2004/EC is available from Ambersil.com or via info.uk@crcind.com

MISREPRESENTATION ACT 1967

TRADE DESCRIPTIONS ACT 1968

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