35 Industrial Parkway Branchburg, NJ 08876-3424 USA
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TECHNICAL DATA SHEET
Anti-fog Coating 7-TS-13
Medical Grade (FDA MAF # 1701)

General Description

An aqueous system containing organic solvents for treatment of packaging films and molded containers that are heat stable and non-yellowing. 7-TS-13 coating deposits a thin film of hydrophilic polymer that reduces the contact angle and prevents formation of water beads that usually appears as mist or fog.

This anti-fog solution has been used successfully on films made of low density polyethylene (LDPE), Thermoforming polyester, PET, Acrylic, Polycarbonate, PE, Nylon, Pebax, etc.

Note: In case of specialized polyolefins where adhesion is only fair, a corona or plasma treatment of the substrate can improve adhesion.

Typical Physical Properties

Property	Temp	Unit	Approved Spec. Range
Appearance (Visual)	RT	NA	Clear to Slightly Hazy
Color (Visual)	RT	NA	Colorless
pH (PHA 1.1)	25°	NA	9.0 – 10.0
Non-volatiles (DSC 1.0)	145°	%	0.2 – 0.3
Viscosity (ZCV 1.0)	25° C	sec	13 – 21
Specific Gravity (SPG 1.0)	25° C	g/ml	0.805 – 0.865

Coating Methods and Coating Cure

Methods of application include dipping, spraying, roll or flow coating. The solution , as supplied , will be adequate for most plastics - however testing should be done to determine the compatibility to the substrate .

Drying: The coating system can be air dried at room temperature. Check on plastic material to be coated first to determine the optimum temperature and time setting for full commercial process. It is recommended that a thermal (heat) cure be utilized in reducing the cure time.

Whether coating is applied by an in-line or off-line process, the coating, when dry, should be a smooth evenly distributed layer.

Shelf Life: The shelf of the coating is six months from date of manufacture when stored in an unopened container , as indicated by the expiration date on the product label.

Note : As supplied the solution must be shaken before use.

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Coating Thickness

The sheeting effects are generally indifferent to coating thickness. However, if the substrate is contaminated with grease and oils, this can destroy the anti-fog properties. The optimum level of solids in the anti-fog solution to be used in any particular case should be determined by trial testing prior to production.

Production line speed relates to coating thickness and ability to dry.

Clean Up

It is best to do equipment clean up before the coating solidifies. Coating residual can be cleaned with water or IPA isopropyl alcohol. For spray application systems check with the spray equipment supplier for recommended cleaning solvents.

Safety Precautions

Flash Point Closed Cup: 29°C

Please refer to MSDS.