



Technical Bulletin

#120

Dry Coat™ RP Dry Time

PRODUCT DESCRIPTION

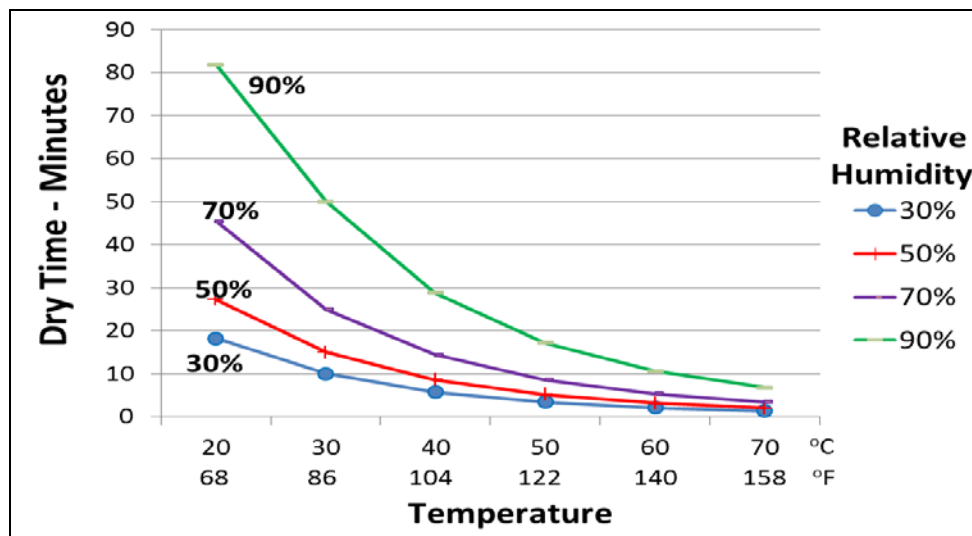
Dry Coat™ Rust Preventative is a water-based liquid RP for ferrous metals. This water-based product is a significant advancement in corrosion prevention technology that replaces solvent and oil-based corrosion inhibitors. Once applied, the clear protective coating will dry-to-touch in approximately 30 minutes at ambient conditions. It does not attract dirt or dust on metal parts such as other sticky or tacky products. It is non-hazardous and easily washes off using mild detergents or common metal cleaning solutions. Dry Coat™ can be applied to ferrous metals by dip, spray or flowcoat and provides indoor protection for up to one year (two years or more can be achieved in combination with other ARMOR VCI packaging). It is not recommended for outdoor use unless combined with other ARMOR VCI packaging products that contain VCI and UV inhibitors. Dry Coat™ is safe to use on ferrous metals, stainless steel and will not harm most elastomers or plastics.

Dry Coat™ is ideal for small parts in large quantities such as nut and bolts. It also works well for large export equipment, gears, pipes or any metal where VCI packaging has limitations. Dry Coat™ is a product that has been engineered to augment ARMOR's corrosion inhibiting packaging product line. The decision to use either Dry Coat™ or other ARMOR VCI packaging products (or a combination) lies in the application and at which point in the process it can be applied. ARMOR is able to support post metal production rust prevention, however, does not typically become involved in the "in-process" liquids as it relates to grinding, cutting or cooling fluids.

ARMOR DRY COAT™ DRY TIME

Dry time depends on ambient conditions: Temperature, Humidity, and Airflow

Dry Time – Temperature & Humidity





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Dry Coat™ is a water-based product that contains rust inhibitors and a surfactant package. Dry Coat™ acts like water in viscosity, however, it contains surfactants that enable it to wet the parts more effectively and adhere to the metal surface with the appropriate film thickness. Excess Dry Coat™ simply flows off the metal surface. The final film thickness is 0.5 – 0.8 microns (0.02 – 0.03 mils).

Some parts may have residual oil based contaminants on them from a previous process. This may cause Dry Coat™ to not fully flow out and wet the metal surface. With severe contamination it may form liquid Dry Coat™ droplets on substrates. Under these conditions the Dry Coat™ droplets are significantly thicker than Dry Coat™ film on a properly wetted surface and will take substantially longer to dry. However, Dry Coat™ will provide protection even in the wet condition.

Drying can be accelerated with warm air, fans, or low temp ovens.

Temperature limits for accelerated drying:

- Wet Dry Coat™ should be kept below 180°F (below the boiling point of water)
- Once dry it will withstand temperatures up to 300°F for short durations (30 minutes or less)
- For longer durations a maximum temperature of 180°F is recommended

PRODUCT FEATURES – ADVANTAGES – BENEFITS

- Safe water-based formula is environmentally and people friendly
- RP dries to the touch- no sticky, messy liquids to clean up
- Replaces oils and other hazardous mineral spirits and solvents
- Ready to use
- No VOCs, non-toxic
- Easy to use, no preparation is needed
- Removes easily, if needed, with mild detergents or common metal cleaning solutions
- Provides a clean, easy and safe rust preventative approach

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F:Product Standards/Technical Bulletins