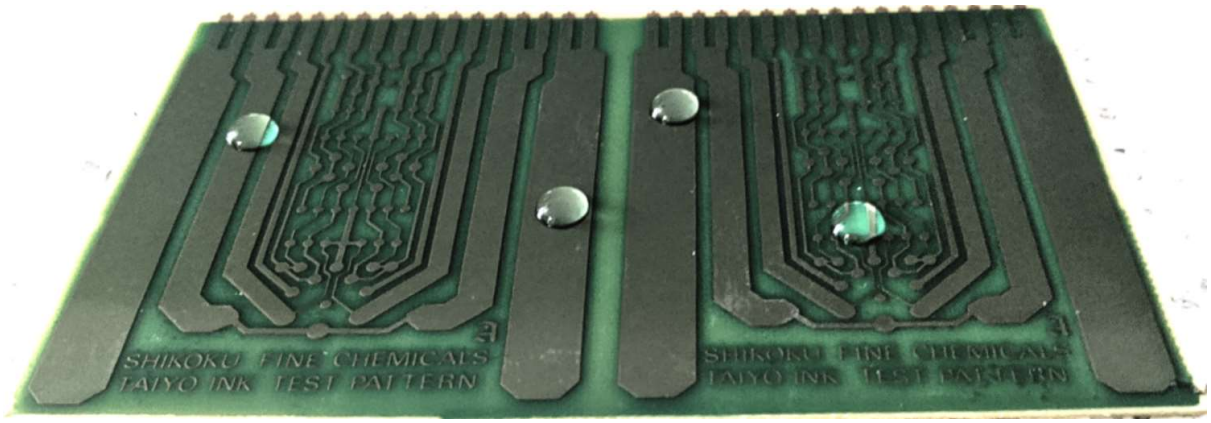
CYTONIX

MicroCure D-series: Conformal coating for vapor barrier & corrosion prevention

MicroCure D-series is a conformal coating formulated for corrosion prevention, vapor barrier properties and hydrophobicity. MicroCure is transparent, smooth and forms a hard shell. It is impermeable to moisture and corrosive pollutants. This low surface energy coating adheres well to most metals, plastics, and solder-mask. MicroCure DTO is colorless and does not alter the color of most substrates.



Technical Data

Chemistry:	Hydrocarbon siloxane
Form:	Liquid
Color:	Clear - lightly turbid
Solvent:	Tert Butyl Acetate
Solids percent:	6 to 40
Temperature stability:	>500°C
Odor:	Ammonia
Film Hardness:	7H – 8H pencil lead hard
Refractive Index	~1.4
Soluble in Water:	No
Specific gravity:	0.8 g/ml
Flammable:	Yes (in liquid form)
Dry film toxicity and flammability:	Non-toxic and non-flammable
Package options:	100 grams in 4 oz. bottle 800 grams in 1-liter bottle

Features:

-- Prevents corrosion
-- Durable 9H hard treatment
-- Apply in <10 minutes
-- Reduces fouling
-- Oleophobic
-- High lubricity
-- Hydrophobic
-- Low friction coefficient
-- Does not migrate
-- Flexible

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Hardness Testing:

MicroCure was tested on 200 µm plastic (PMMA) substrates. The substrate was first plasma cleaned. The sample was rod coated with MicroCure DTO to a wet film thickness of 7.5µm. The coated plastic was left to cure at room temperature for over 12 hours. Pencil hardness tests were carried out with a MXBAOHENG pencil hardness test kit and Staedtler Mars Lumograph calibrated pencil set.

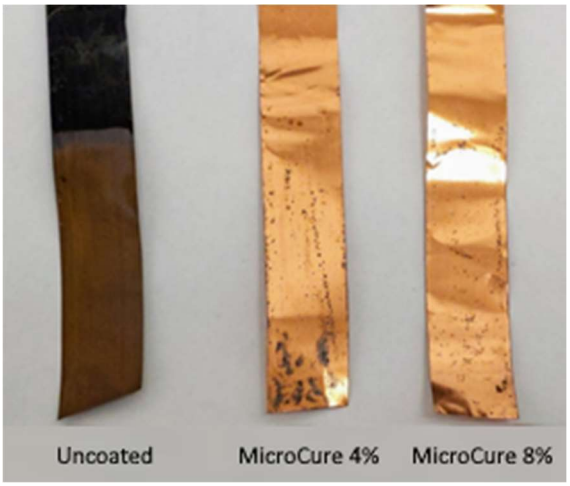
Table 1. Pencil hardness and scratch resistance of Microcure films

Tests	Property
500 grams weight pencil:	7-8H Hard
750 grams weight pencil:	6H Hard
1000 grams weighted pencil:	4H Hard

Table 2. Properties of Microcure films

Tests	Property
Water contact angle	>100°
Water roll-off	<40° roll-off angle
Mineral oil contact angle	>50°
Mineral oil roll-off	<5° roll-off angle
UV light resistance	No yellowing observed, as good as glass

Performance: The picture shows MicroCure coated copper coupons compared to an uncoated coupon after exposure to 5% NaCl in water at 65°C for 3 days. The MicroCure coated copper is largely free of corrosion.



Application and Curing: MicroCure can be applied by either dipping or spraying. MicroCure will be dry to the touch after 60 minutes at room temperature. At room temperature complete curing of MicroCure takes 12 hours. At 100°C, the time to cure is approximately 15 minutes.

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