

Technical Data Sheet VIRIDYN DX

Version	Revision Date:	Date of last issue:	21-Aug-2025
4.0	15-Nov-2025	Date of first issue:	27-Jul-2020

OVERVIEW

Type Corrosion resistant, hard, hydrophobic, low-surface energy, PFAS-free nano-coating.

Features & Functionality

VIRIDYN DX is transparent, smooth, and forms a hard (7H to 9H), corrosion-resistant, low surface energy shell. Impermeable to gas and corrosive pollutants. Low-grade oleophobicity. Adheres well to most metals, plastics, and glass. VIRIDYN DX is colorless, does not alter the color of substrates, maintains optical transparency, does not alter membrane porosity. 100% PFAS free.

Application

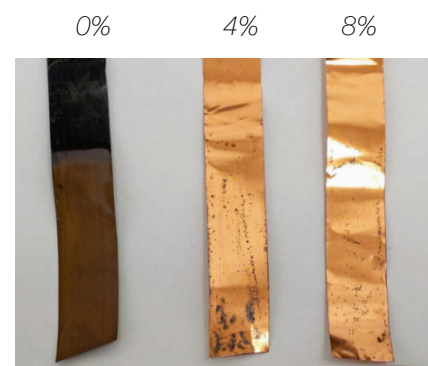
VIRIDYN DX can also be applied by wipe-on or spray methods. Air-cures between 1 hour and 24 hours depending on substrate and concentration. Can be heat-cured.

Film Hardness Testing: VIRIDYN DX was tested on 200 µm plastic (PMMA) substrates. The substrate was first plasma cleaned. The sample was rod coated with VIRIDYN DX 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.

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

Testing Summary

Corrosion Testing: The picture shows VIRIDYN DX 4% and 8% coated copper coupons compared to an uncoated coupon after exposure to 5% NaCl in water at 65°C for 3 days. The VIRIDYN DX coated copper is largely free of corrosion.



SOLUTION PROPERTIES

Chemistry	Hydrocarbon siloxane
Form	Liquid
Color	Clear - lightly turbid
Solvent options	Ethyl Acetate, Tert Butyl Acetate, or AS300
Solids percent	4% to 40%
Specific gravity	0.8 g/ml
Flammability risk	Solvents Ethyl Acetate and Tert Butyl Acetate are flammable. AS300 is not flammable
Soluble in Water	No
Dry film toxicity	Non-toxic and non-flammable
Package options	100 grams in 4 oz. bottle 800 grams in litre bottle 3000 grams in gallon bottle

COATING PROPERTIES

Temperature stability	>500°C
Odour	Dry film has no odour
Film Hardness	7H – 9H pencil lead hard
Refractive Index	~1.4
Water contact angle	>110°
Water roll-off	<40° roll-off angle
Mineral oil contact angle	>20°
Mineral oil roll-off	<5° roll-off angle
UV light resistance	No yellowing observed

IDENTIFICATION

Product name

VIRIDYN DX

MANUFACTURER or SUPPLIER'S DETAILS

Company name of supplier

ViriDyn LLC
www.viridyn.com
info@viridyn.com



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