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Comparing BioCorr to Quenching Fluid

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Sample Received: Daphne Plastic Quench RP "From Sump 5%"

Method: ASTM D-1748 humidity cabinet (120°F, 95% relative humidity)

Materials: Daphne Quench
BioCorr
1010 cold rolled carbon steel panels

Procedure: The following procedure was used:

1) Three carbon steel panels were cleaned with methanol prior to testing.
2) After cleaning, panels were prepared as follows:
    a. Control (no further preparation)
    b. Dipped in Daphne Quench (used as received)
    c. Dipped in BioCorr (neat)
3) After dipping, panels were hung to air dry overnight.
4) All panels were then hung in ASTM D-1748 humidity cabinet.
5) Panels were visually inspected periodically.
6) After 600 hours, all panels were removed from ASTM D-1748 humidity cabinet.
7) All panels were visually inspected and photographed.

Results: The following results were found:

Panel Treatment	Time to Corrosion (Hours)
Control	<24
Daphne Quench	96
BioCorr	600

Photos:

Interpretations: BioCorr provides superior corrosion protection Daphne Plastic Quench RP-U. After 600 hours of accelerated corrosion testing, very little corrosion was send on the carbon steel panel protected by BioCorr. Conversely, the panel protected by Daphne was severely corroded.