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Humidity Testing for AFAB Corporation

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Background: Shock shim parts were sent to Cortec for humidity testing to determine the difference in corrosion protection comparing plain polyethylene film to VpCI-126 film with and without VpCI-130 series foam. Customer has also provided shock shim parts that were coated with an unknown rust preventative product.

Samples Received: The following samples were received on 2/16/15 in good condition:

1. Shock shim parts sealed in 4mil plain polyethylene film
2. Shock shim parts coated with unknown RP sealed in 4mil PE film
3. Shock shim parts sealed in 4mil VpCI-126 film
4. Shock shim parts and one square inch of VpCI-130 series foam sealed inside 4mil VpCI-126 film.

Method: ASTM D1748, Humidity Testing (120°F, 100% relative humidity)

Materials: Koehler humidity chamber

Procedure: The following procedure was followed for the humidity testing:

1. Shock shim parts were hung in the humidity chamber as provided by the customer.
2. Time to failure was recorded by the first appearance of corrosion.
3. After 1370 hours of testing, the parts were taken out of the humidity chamber and photographed.

Results:

Shock shim parts:	Time to failure
Sealed in 4mil plain polyethylene film (control)	150 hours
Coated with unknown RP and sealed in 4mil plain polyethylene film	Did not fail
Sealed in 4mil VpCI-126 film	Did not fail
Sealed in 4mil VpCI-126 film with one square inch of VpCI-130 foam	Did not fail

Interpretations: After 1370 hours of humidity testing, only the shock shim parts sealed in plain polyethylene film (control test) showed any signs of corrosion. Shock shim parts sealed in VpCI-126 film with and without VpCI-130 foam provide excellent corrosion protection.

Photos after 1370 hours of Humidity Testing



Sealed in polyethylene film (control)



Coated with unknown RP and sealed in PE film



Sealed in VpCI-126 film



Sealed in VpCI-126 film with VpCI-130 foam