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Comparison of VpCI-325 and Fuchs RP on Camshaft Parts

For: Customer

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Background: The customer would like to compare the corrosion protection of VpCI-325 to a Fuchs Lubricant rust preventative on their steel, cast, and ductile parts.

Sample Received: - 2 sets of 3 different metal parts (8 inches, 5.5 inches, and 4 inches in length and all are about 1.5 inches in diameter).

Method: ASTM D-1735 (100 °F and ~99% relative humidity)

Materials: Non-VCI polyethylene bags
VpCI-325 (05412)
Fuchs AntiCorit SV 50286 HF-55GL DR
Metal test parts
VpCI-415

Procedure: The following procedure was used:

1. Clean each part with VpCI-415 to remove the grease and oil on the parts and allow drying.
2. Coat one set of three parts with VpCI-325 and place in clear non-VCI polyethylene bag.
3. Coat the other set of three parts with Fuchs rust preventative and place in a different clear non-VCI polyethylene bag.
4. Place both bags in ASTM D-1735 water fog chamber.
5. Monitor the parts for visual corrosion on the metal.

Results and Discussion: The following results were found:

ASTM D-1735 Water Fog Testing

Product Used	Time for parts to reach corrosion failure (hours)
VpCI-325	312
Fuchs RP	192

Interpretations:

According to the testing completed, VpCI-325 is a better rust preventative for the provided parts than the Fuchs Lubricants product. The parts treated with VpCI-325 did not fail until 312 hours in ASTM D-1735 testing, while the other parts failed at 192 hours. This is further confirmed by the photos of the parts after 360 hours of testing, as seen below.

Photos:

The following photos were taken after 360 hours of testing:



Figure 1: Part 1 protected with VpCI-325



Figure 2: Part 1 protected with Fuchs RP



Figure 3: Part 2 protected with VpCI-325



Figure 4: Part 2 protected with Fuchs RP



Figure 5: Part 3 protected with VpCI-325



Figure 6: Part 3 protected with Fuchs RP