



# ZEEMAIL



## Zeeospheres® Ceramics, LLC

129 Valentine Drive, Lockport, Louisiana 70374

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### Zeeospheres® Ceramics Improves Corrosion Resistance

In most coatings, use of **Zeeospheres® Ceramics** will measurably improve corrosion resistance. In general, this knowledge has come from reports of users as well as laboratory test data to quantify this improvement.

A major resin producer conducted a study to determine the effect of **Zeeospheres® Ceramics** vs. other materials on corrosion resistance and agreed to share a portion of their data.

A water reducible epoxy primer formula was used in this study. To accentuate the effect of **Zeeospheres® Ceramics**, a relatively weak vehicle system was employed.

Results are shown on the attached table, but highlights worth noting include:

1. In general, increasing levels of **Zeeospheres® Ceramics** produced coatings with increasing corrosion resistance.
2. Increasing levels of **Zeeospheres® Ceramics** also produced
  - Reduced material costs
  - Higher PVC's and solids
  - Little increase in viscosity
3. Compared to equivalent volumetric loadings of other low oil absorption extenders like barium sulfate<sup>1</sup>, results with **Zeeospheres® Ceramics** showed:
  - A tripling of the hours to failure in the salt spray cabinet
  - Lower weight per gallon<sup>1</sup>

Sincerely,

Jeffrey Strobel  
Sales Engineer

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<sup>1</sup> (See results for formula 8 vs. formula 5)

**Comparison of Zeospheres G-200 vs Barytes in a Two Part Water Based Corrosion Inhibitive Primer**

Panel	1	5	6	7	8	9
<b>Formulating Constants</b>						
PVC	30.4	40.2	30.4	34.9	40	45
Application Solids	41.3	41.4	41.6	44.3	45	44.8
AB Application Visc. KU	80	80	80	80	80	80
<b>Part A</b>						
Pb Sil	100	100	100	100	100	100
<b>Part B</b>						
Fe Ox	125	125	125	125	125	125
BASO <sub>4</sub>	275	541	-	-	-	-
Zeospheres <b>G-200</b>	-	-	150	211	291	385
<b>Salt Spray Results on 2 Mil Films Over Bonderite 1000 Panels (ASTM B 117)</b>						
Hours to Failure	168	336	<b>504</b>	<b>504</b>	<b>504</b>	<b>504</b>
Observations: ASTM D 714						
<b>Field</b>						
Blisters	8MD	4VD	8F	8M	8F	8D
<b>Scribe</b>						
Blisters	8MD	4VD	8F	8M	8F	8D
Rust	Trace	Definite	Pronounced	Definite	Definite	Definite
Creep	4	3	7	4	2	2
<b>Overall Ranking of Salt Spray Performance</b>						
	6	5	4	3	1	2