

Ritecoat 2200

Summary of Laboratory Test Data

The tests in this Summary were carried out on RITECOAT 2200 applied in one or two coats to a thickness of 50 microns or less.

1. GENERAL / MECHANICAL

Substrate: tin plate, Pyrene brand standard test panels

- Gloss	BS 3900, Part D2	Pass
- Bend	BS 3900, Part E1	Pass
- Impact indent	BS 3900, Part E3	Pass
- Cross hatch	--	Pass
- Adhesion (tape test)	--	Pass

2. ABRASION AND SCRATCH RESISTANCE

Substrate: tin plate, Pyrene brand standard test panels

- Taber Wear Index, wheels		
CS17 Load 1000 GRM	BS AU148, Part 4	Pass
- Scratch	BS 3900, Part E1	Pass

3. HUMIDITY / WEATHERING

Substrate: tin plate, Pyrene brand standard test panels

- Humidity (240 hours)	BS 3900, Part F2	Pass
- Accelerated weathering (1000 hours)	BS 3900, Part F3	Pass

4. SALT SPRAY RESISTANCE

a) Substrate: steel plate, grit blasted to Swedish Standard S.A. 2.5

- Salt spray	ASTM D-1654-61	Pass
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b) Substrate: tin plate, Pyrene brand standard test panels

- Salt spray (1000 hours)	BS 3900, Part F4	Pass
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5. ACID RESISTANCE

a) Substrate: tin plate, Pyrene brand standard test panels

- Resistance to acid water (12 weeks immersion)	BS 3900, Part G5	Pass
- Resistance to HF acid 5% (7 days immersion)	BS 3900, Part G5	Pass

b) Substrate: tin plate, Pyrene brand standard test panels

Test method: total immersion for sixty (60) days, 23°C.

		<u>Surface Changes</u>
- Acetic	10%	Blistering – 30 days
- Formic	10%	Destruction – 30 days
- Hydrochloric	10%	None
- Hydrochloric	20%	Blistering – 30 days
- Nitric	10%	Blistering – 30 days
- Sulphuric	10%	None
- Sulphuric	50%	None

PLEASE NOTE: Most coatings are susceptible to blistering or surface destruction by the above acids within several days, under conditions of total immersion and elevated temperature.

c) Substrate: steel plate, grit blasted to Swedish Standard S.A. 2.5

Test method: total immersion until minor surface attack observed visually.

- Acetic	100%	40 days
- Hydrochloric	37%	140 days
- Nitric	20%	40 days
- Sulphuric	50%	250 days

6. RESISTANCE TO BASES/ALKALIS

a) Substrate: tin plate, Pyrene brand standard test panels

Test method: total immersion for sixty (60) days, 23°C.

		<u>Surface Changes</u>
- Ammonia	10%	Blistering – 30 days
- Hydrogen peroxide	10%	Blistering – 30 days
- Soda solution, saturated	10% (45°C)	None
- Sodium hydroxide	20%	None
- Sodium hydroxide	20% (50°C)	None

PLEASE NOTE: Most coatings are susceptible to blistering or surface destruction by the above alkalis within several days, under conditions of total immersion and elevated temperature.

b) Substrate: steel plate, grit blasted to Swedish Standard S.A. 2.5

Test method: total immersion until minor surface attack observed visually.

- Sodium hydroxide	50%	720 days
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7. SOLVENT RESISTANCE

a) Test panels: tin plate, Pyrene brand standard panels

Test method: total immersion for sixty (60) days, 23°C.

	<u>Surface Changes</u>
- Methanol	Softening – 20 days
- Methyl isobutyl ketone	Softening – 60 days
- Toluene	None
- White spirit	None
- Xylene	None

PLEASE NOTE: Most coatings are susceptible to softening of the surface film by the above solvents within several days, under conditions of total immersion and elevated temperature.

b) Substrate: steel plate, grit blasted to Swedish Standard S.A. 2.5

Test method: total immersion until minor surface attack observed visually.

- Cellosolve acetate	720 days
- Methyl ethyl ketone (MEK)	30 days

8. RESISTANCE TO OTHER LIQUIDS

a) Substrate: tin plate, Pyrene brand standard test panels

Test method: BS 3900, Part G5.

- Non-saline water (12 weeks immersion)	Pass
- Saline water (12 weeks immersion)	Pass
- Diesel oil (7 days immersion)	Pass
- Mineral oil (7 days immersion)	Pass

b) Substrate: tin plate, Pyrene brand standard test panels

Test method: total immersion for sixty (60) days, 23°C.

	<u>Surface Changes</u>
- Distilled water	None
- Fuel oil + 10% water (50°C)	None