



OzKem Australia Pty Ltd
810 Princes Highway
Tempe 2044 NSW
Australia

ASTM G22, Resistance to Bacteria, Testing of ECRA-SH and ECRA-SHM, Super Hydrophobic (LME) coated aluminium panels

Results of the above testing: as per attached report

This report was prepared and reviewed by:

Thomas Wagner

Technical Director, OzKem Pty Ltd

Date: 19/03/2011



OzKem Australia Pty Ltd
810 Princes Highway
Tempe 2044 NSW
Australia

Test Report

Client : Pole Star Coils Pvt. Ltd
Contact/Reported to : Mr Viveck Varma
Date : 19.03. 2011
Test requirement : ASTM G22, Resistance to Bacteria
Reference : G22/S1-15/BC030187
Sample details : ECRA-SH, ECRA-SHM both in green jade colour
Substrate : Standard aluminium finstock, 20 x 20 mm coupons
Sample number : 10 coated coupons; 5 uncoated coupons

Test details : ASTM G22
Test Conditions: as per ASTM G22

Abstract

Pole Star Coils Pvt. Ltd has provided 10 green coated coupons on standard aluminium test finstock for ASTM G22, Bacteria Resistance Testing. 5 uncoated finstock samples were also provided for comparison.

Sample identification: Uncoated Al was used for blank, ECRA-SH and ECRA-SHM

Test Conditions:

1. Temperature, 35 to 37°C
2. RH, 85%
3. Test duration, 28 days

Test Results

Parameter	Coupon: 1	Coupon: 2	Coupon: 3	Coupon: 4	Coupon: 5
Uncoated	+ve	+ve	+ve	+ve	+ve
ECRA-SH	Growth score 4	-ve	-ve	Growth score 3	-ve
ECRA-SHM	-ve	-ve	-ve	-ve	-ve

NB:

Result +ve designation = Growth detected on the surface of uncoated coupons
Result -ve designation = ECRA-SH, Coupon:1 achieved growth score rating '4'
Coupon: 4 achieved growth score rating '3'.
= ECRA-SHM achieved rating of '0' on all coupons

Test rating

1. Uncoated aluminium finstock sample coupons have all failed the 28 day exposure test according to ASTM G22 conditions.
2. Coated sample coupons marked ECRA-SH 2/5 coupons indicated some bacteria presence. (Coupon:1 = growth score rating '4'; Coupon:4 = growth score rating '3').
3. ECRA-SHM ALL samples had passed the 28 day exposure test according to ASTM G22 conditions. ECRA-SHM achieving '0' growth score on all test coupons.

Conclusion

ECRA-SH have Passed the ASTM G22 Resistance to Bacteria test conditions
ECRA-SHM coated coupons have PASSED the ASTM G22 test conditions yielding excellent results.