

## TEST REPORT: 7191088977-CHM14-03-PGK

Date: 16 JUN 2014

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Client's Ref:

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### SUBJECT

Humid Sulphur Dioxide Test on Screws

### CLIENT

EJOT Asia Pacific Pte Ltd  
32 Old Toh Tuck Road  
#04-05  
I.Biz Centre  
Singapore 597658

Attn: Mr Noel Yu

### SAMPLE SUBMISSION DATE

24 Feb 2014

### DATE TEST CONDUCTED

24 Mar to 11 Apr 2014

### DESCRIPTION OF SAMPLE

One sample of self drilling screws described as follows, was submitted by the above client:

Brand : "EJOT"  
Model : JT2-6-5.5X25 C1000  
Quantity : 5



**Laboratory:**  
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**METHOD OF TEST**

1. AS 3566.2 - 2002  
"Self-drilling screws for the building and construction industries –  
Part 2 : Corrosion resistance requirements"
2. DIN 50018 - 97  
"Testing in a saturated atmosphere in the presence of sulphur dioxide"

**Test Conditions :**

Gas type	: Sulphur dioxide, SO <sub>2</sub> (99.9% purity)
Concentration of SO <sub>2</sub>	: 0.67%v/v theoretical SO <sub>2</sub> concentration at beginning of each test cycle (KFW 2.0S)
Test cycle	: Phase 1 - 8 hours at 40±3°C, including pre-heating Phase 2 - 16 hours, including cooling in ventilated test chamber to room temperature (21 to 25°C)
Relative humidity	: Phase 1 - greater than 95% (condensing) Phase 2 - 55 to 75%
Total duration	: 15 cycles
Position of specimens	: Inclined 15° from vertical

**Method of Assessment**

- 1) AS/NZS 1580.481.1.9 - 1998  
"Paints and related materials – Methods of test  
Method 481.1.9 : Coatings – Exposed to weathering – Degree of blistering"
- 2) ISO 10289 – 1999  
"Methods for corrosion testing of metallic and other inorganic coatings on metallic substrates  
– Rating of test specimens and manufactured articles subjected to corrosion tests"



**RESULTS**

Test Conducted	"EJOT" JT2-6-5.5X25 C1000 Self Drilling Screws	AS 3566.2 – 2002 Class 3 Requirements
Condensing atmosphere in the presence of sulphur dioxide, 15 cycles	No rusting nor blistering of coating on all five tested screw heads	<u>Screw heads :</u> <ul style="list-style-type: none"><li>- Red rust shall not be over 5% of the significant areas</li><li>- No blistering of coating</li></ul>

Remarks : Test was conducted on five screws mounted in non-metallic fixture.

All five tested screws met AS 3566.2 : 2002 Class 3 requirements on resistance to condensing atmosphere containing sulphur dioxide.

**MS PECK GEOK KHOON**  
TECHNICAL EXECUTIVE

**MRS WONG-LIN TAI HOE**  
PRODUCT MANAGER  
COATINGS  
CHEMICAL & MATERIALS

"EJOT" JT2-6-5.5X25 C1000 Self Drilling Screws



Figure 1. Before Test



Figure 2. After 15 cycles of exposure in condensing atmosphere containing sulphur dioxide

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July 2011

