Commercial-in-Confidence

Cobham Technical Services
ERA Technology
Cleeve Road, Leatherhead
Surrey, KT22 7SA, England

T: +44 (0) 1372 367000
F: +44 (0) 1372 367099

Business Unit: Cobham Technical Services
ERA Technology Engineering Consultancy Services

Report Title: Testing of Rubber Mat to BS 921:1976

Author: P Shepherd

Client: Coba Plastics Ltd

Client Reference:

Report Number: 2010-0189
Project Number: 7M0598701
Report Version: Final Report
Document Control: Commercial-in-Confidence

Report Checked by:

Mark Coates
Cable Engineering Consultant

Approved by:

Simon Brown
Head Engineering Consultancy Services

March 2010

Ref. K:\Projects (7 series)\7M - Materials Design & Consultancy\7M0598701 Coba Plastics Ltd (11099)\Reporting\Report 7M0598701.doc

PURPOSE OF DISTRIBUTION:

This document is distributed to Coba Plastics Ltd for the sole purpose of commercial use. Rights to copy or distribute this document are only granted for the stated purpose. The document may not otherwise be used or distributed without the prior written permission of Cobham Technical Services.

© ERA Technology Limited 2009
All Rights Reserved
No part of this document may be copied or otherwise reproduced without the prior written permission of ERA Technology Limited. If received electronically, recipient is permitted to make such copies as are necessary to: view the document on a computer system; comply with a reasonable corporate computer data protection and back-up policy and produce one paper copy for personal use.

Distribution List

Client	(1)
Project File	(1)

DOCUMENT CONTROL

Distribution of this document by the recipient(s) is authorised in accordance with the following commercial restrictive markings:

Commercial-in-confidence : No distribution or disclosure outside of the recipient's organisation is permitted without the prior written permission of ERA Technology Limited.

Distributed-in-confidence : Distribution of the document shall be in accordance with the document distribution list and no further distribution or disclosure shall be allowed without the prior written permission of ERA Technology Limited.

Recipient-in-confidence : ERA Technology Limited distributes this document to the recipient on the condition that no further distribution or disclosure by the recipient shall be allowed.

Where specified the document may only be used in accordance with the 'Purpose of Distribution' notice displayed on the cover page.

For the purpose of these conditions, the recipient's organisation shall not include parent or subsidiary organisations.

Permission to disclose within recipient's organisation does not extend to allowing access to the document via Internet, Intranet or other web-based computer systems.

Commercial restrictive markings are as contained in page header blocks.

If no restrictive markings are shown, the document may be distributed freely in whole, without alteration, subject to Copyright.

ERA Technology Limited trading as Cobham Technical Services
Cleeve Road
Leatherhead
Surrey KT22 7SA, England
Tel : +44 (0) 1372 367000
Fax: +44 (0) 1372 367099
E-mail: era.info@cobham.com

Read more about Cobham Technical Services on our Internet page at:
www.cobham.com/technicalservices

1. Test parameters

Test Method:	Generally to: - BS 921:1976
Equipment Used:	ERA 100 kV test rig no.76-023, calibrated 22/09/09
Electrodes:	305mm x 305mm square Brass electrode plates
Rate of Rise of Voltage:	~2 kV/sec.
Material:	Ribbed rubber mat sample supplied by customer as shown in fig 1.
Specimen Dimensions:	1m x 2.9m x 9.8mm thick to the top of the ribs.
Preconditioning:	24 Hours at 23 ± 2ºC
Date of Test:	24th March 2010

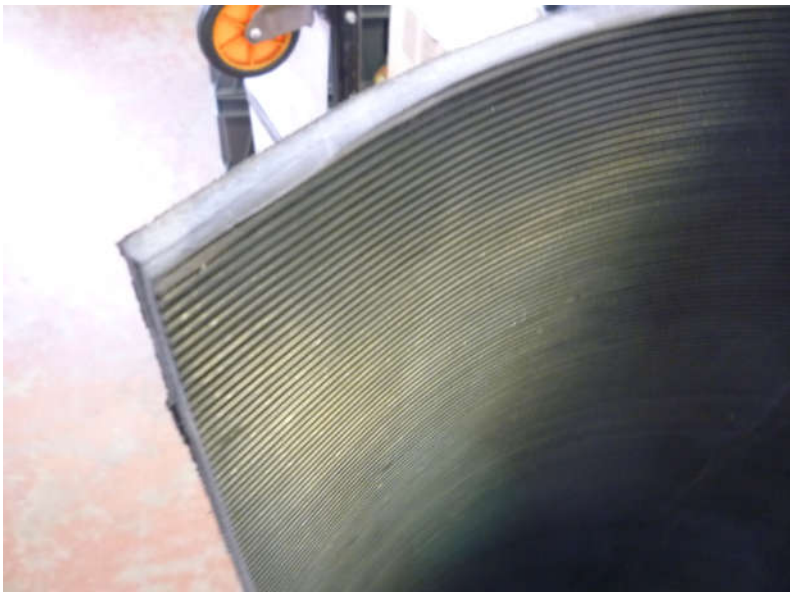


Figure 1. Ribbed rubber mat test sample.

2. Results

A 0.837m² area of rubber mat was tested in sections, with each section measuring the size of the test electrodes. This is shown schematically in figure 2 with the results in milliamps.

© ERA Technology Ltd

2.7mA	2.7mA	3mA
2.6mA	2.6mA	3mA
2.8mA	2.4mA	2.9mA

Figure 2. Test area on mat

Total current measured: 24.7mA

Total test area: 0.837m²

Leakage current for mat test area = 29.50 mA/m²

3. Conclusion

Clause 7.1 of BS 921:1976 stipulates that the leakage current shall not exceed 160mA/m². The mat tested in this report, with a measured leakage current of 29mA/m², meets requirement.

© ERA Technology Ltd