



Report Title: Cap 90 degree for corrugated tubes
Report Number: RL150017
Revision: O
Date Issued: 13 jan 2015

Execution: Elias Moraes
Phone: 11 3404-6279

Requestor: Marcos Ogawa
Phone: 11 3404-6153
Address: mrogawa@te.com

Disposition of Samples: Return to Customer

List of Part Numbers: 965577-1

©2015 Tyco Electronics Corporation All International Right Reserved. This is a Class II confidential document belonging to TE. A class II document may not be disclosed to any non-TE persons without (1) the written approval of an authorized TE manager and (2) the signing of a Confidential Disclosure Agreement.

Scope/Abstract and Conclusions

Purpose

Product validation tests according to DVP.

These tests will be made with samples produced with material of both raw material suppliers: Lanxess and Radici.

Summary

Informative

1. RESULTS

Test Sequence/Environment	Requirements	Results																																		
Group 1 - Top cover to connector mating and unmating force .	Informative.	<table border="1"> <thead> <tr> <th colspan="2">Measurements</th> <th>1^a Locking</th> <th>2^a Locking</th> </tr> </thead> <tbody> <tr> <td rowspan="6">Mating Force (N)</td> <td rowspan="3">Lanxess</td> <td>Minimum</td> <td>11,5</td> </tr> <tr> <td>Average</td> <td>13,7</td> </tr> <tr> <td>Maximum</td> <td>17,0</td> </tr> <tr> <td rowspan="3">Radici</td> <td>Minimum</td> <td>11,5</td> </tr> <tr> <td>Average</td> <td>12,8</td> </tr> <tr> <td>Maximum</td> <td>14,5</td> </tr> <tr> <td rowspan="6">Unmating Force (N)</td> <td rowspan="3">Lanxess</td> <td>Minimum</td> <td>185,5</td> </tr> <tr> <td>Average</td> <td>203,1</td> </tr> <tr> <td>Maximum</td> <td>215,0</td> </tr> <tr> <td rowspan="3">Radici</td> <td>Minimum</td> <td>185,0</td> </tr> <tr> <td>Average</td> <td>196,2</td> </tr> <tr> <td>Maximum</td> <td>214,0</td> </tr> </tbody> </table>	Measurements		1 ^a Locking	2 ^a Locking	Mating Force (N)	Lanxess	Minimum	11,5	Average	13,7	Maximum	17,0	Radici	Minimum	11,5	Average	12,8	Maximum	14,5	Unmating Force (N)	Lanxess	Minimum	185,5	Average	203,1	Maximum	215,0	Radici	Minimum	185,0	Average	196,2	Maximum	214,0
Measurements		1 ^a Locking	2 ^a Locking																																	
Mating Force (N)	Lanxess	Minimum	11,5																																	
		Average	13,7																																	
		Maximum	17,0																																	
	Radici	Minimum	11,5																																	
		Average	12,8																																	
		Maximum	14,5																																	
Unmating Force (N)	Lanxess	Minimum	185,5																																	
		Average	203,1																																	
		Maximum	215,0																																	
	Radici	Minimum	185,0																																	
		Average	196,2																																	
		Maximum	214,0																																	
Group 2 - Drop Test	Informative.	Samples didn't present signs of deterioration, cracks or deformities. Informative.																																		

2. SAMPLE & WIRE DESCRIPTION

The Certification of Conformance (C of C), submitted with the test request, lacked the necessary information to verify the samples tested. Therefore the Test Lab cannot verify that the samples have been produced, inspected, and accepted as conforming to product drawing requirements, and made using the same core manufacturing processes and technologies as production or parts.

2.1 Group / Samples

Group	Part Number	Rev.	Date Code	Sample Description	Quantity Tested
1/2	965577-1	A3	N/A	Cap 90 Degree For Corrugated Tubes - Raw material (Radic)	20
1/2	965577-1	A3	N/A	Cap 90 Degree For Corrugated Tubes - Raw material (Lanxess)	20

* Information either unavailable or not provided by requestor.

3. SAMPLE PREPARATION

3.1 1º Lock force:

Top cover to connector mating force .



3.2 2^o Lock force:

Top cover to connector mating force .



3.3 Extraction force:

Top cover to connector unmating force.



3.4 Drop test: Samples assembled with counterpart, without terminals and cables.



4. TEST PROCEDURE

4.1 Mating Force: Apply a force for 1st and 2nd lock, top cover to connector.
Unmating Force: apply a force for extraction the top cover to connector.

4.2 Drop test:

Drop each sample 6 times onto a horizontal concrete surface from a height of 1 meter, orienting the sample each drop in one spatial direction (opposing housing sides).

5. TEST EQUIPMENT

All equipment containing a calibration number is calibrated and traceable through TE to the National Institute of Standards and Technology (NIST).

Instrument Description	Manufacturer	Model Number	Calibration Number	Purpose
Dynamometer	Mecmesin	AGF 2500N	92-339017-090	Top cover to connector mating – unmating force

6. APPROVALS

Approvals are secured electronically through the corporate document repository routing and approval system.

Testing & Report By: Elias Paula de Moraes, Laboratory Technical

Reviewed & Approved By: Paulo Sergio Almeida, Laboratory Coordinator