

MECHANICAL CHARACTERIZATION & TESTING **IMPACT TEST PROCEDURE**

Accessories **Connectors** **IEC60794-1-21**

Client: الوارد من الشركة المصرية للاتصالات لصالح شركة سفن هاندرد للأفكار الصناعية والتطوير الرقمي

Date: 29/02 /2024

Introduction:

As per the Client request for mechanical testing for the microduct accessories

This test is carried out to make sure that all the micro duct connections/endcaps are air tight and it also shows that the tube is air tight and no leakages. The pressure used here is the same as the pressure used to blow the fibre bundle / cable (between 7 & 15 bar, depending compressor availability).

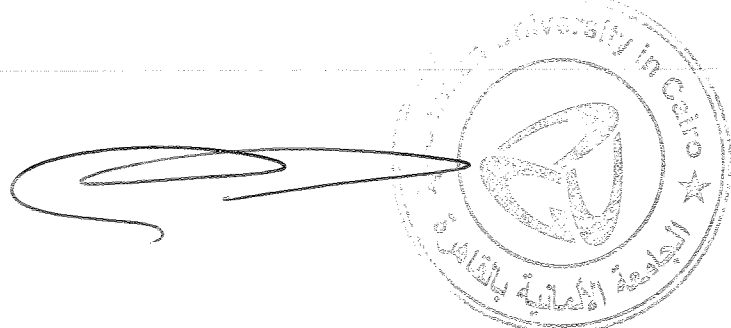
We followed the same mechanical characterization & testing procedure as received from the client.

Verifying the Test Result

The pressure test was verified by pressure drop more than 2bar as well as by water dunk tube to determine the leakage and its position. If the pressure drops by less than 2 bar in the first 2 minutes, then this is acceptable. The air pressure slightly expands the tube creating an initial pressure drop. If pressure drops by more than 2 bar before stabilizing, re-pressurize the tube and check to see if a maximum 2 bar drop is established.

Important Notes:

- Pressure test procedures were supplied by client's representatives: SABBOUR Consulting (as attached Pdf document) sent by the client Telecom Egypt Company - الشركة المصرية للاتصالات



- b) To investigate and determine the position of the leakage after impact test; if it is present; we have used the “Water dunk tube” where the microducts with its accessories have submerged in water under pressure test 9 bar. This way it was easier to pinpoint the leakage and its position. Accessories/Products with air bubbles present around them = leaking area = loss in pressure bar.

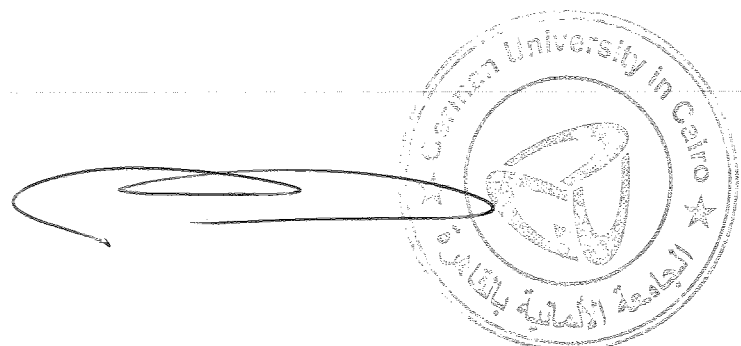
Test Procedure and Parameters

Method E4 IEC60794-1-21

- Single way microduct tested to 1.5J (1kg from 150mm)
- If the above test at 1.5J passed then move to the next level the single way microduct tested to 3J (1kg from 300mm)
- The sample located in a v-block directly under hollow cylinder, the sample should be long enough to allow 3 tests on the sample no less than 500mm apart.
- Recovery time: 1hr

Acceptance criteria

Under visual examination, without magnification, there shall be no damage after the test. The imprint of the striker on the sample is not considered as a mechanical defect.



Mechanical Characterization & Testing Impact Test Result - Connectors

#	Connectors	3J	Pressure test 9 bar -10 minutes
1	7/3.5mm	pass	No leakage

Document approved M. OSMAN Date 3/3/2024

Materials Testing Lab



Prof. Dr. Ahmed Abd El Aziz

تمت هذه الاختبارات للعينات الواردة من العميل دون أدنى مسؤوليه على جهة الاختبار

