

# TEST REPORT

## No. MI17-0016120-01

### CONDUIT SYSTEM FOR CABLE MANAGEMENT

performed in accordance with

EN 61386-1:2008

<b>PRODUCT</b>	Rigid Conduit (Rigid Pipe in ABS)
<b>MODEL(s) TESTED</b>	TUBOABS0250M
<b>TRADE MARK(s)</b>	CHT CAPONAGO
<b>APPLICANT</b>	CHT s.r.l. - Via Maestri del Lavoro 8 - 20867 CAPONAGO - MB -I

Tested by	Mascheroni Virginio <i>[Laboratory Technician]</i>	
Approved by	Primicerio Alessandro <i>[Laboratory Manager]</i>	

#### Revision Sheet

Release No.	Date	Revision Description
Rev. 0	2017-10-04	First edition

The results of tests and checks reported in this Test Report refer exclusively to the samples tested and described in the Report itself.

This Report shall not be reproduced partially without the written approval of IMQ S.p.A..

The authenticity of this Test Report and its contents can be verified by contacting IMQ S.p.A., responsible for this Test Report.

## GENERAL DATA

SAMPLE		
Samples received on	2017-09-18	Item(s) sampled and sent by applicant
IMQ reference samples	BEM	87926
Samples tested No.	15	
Samples accepted on	15	
Object under analysis recognition	<b>Not carried out</b> Except where stated, characteristics of products were taken from client description and were not verified by the laboratory	

TESTING LOCATION	
Testing dates	2017-10-02 ÷ 2017-10-04
Testing laboratory	IMQ S.p.A. - Via Quintiliano, 43 – 20138 Milano
Testing site	As above

ENVIRONMENTAL CONDITION	
<i>Parameter</i>	<i>Measured</i>
Ambient Temperature	20 ÷ 25 °C
Relative Humidity	50 ÷ 60 %
Atmospheric Pressure	900 ÷ 1000 mbar

## REFERENCE DOCUMENT

	DOCUMENT	DATE	TITLE
<input checked="" type="checkbox"/>	EN/IEC	2008	EN 61386-1 :2008
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## SUMMARY OF CONTENTS

Attachment #	Description	Page
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**Note:**

Attachments may include Schematics, Components information, Component test Reports, Particular Standard test Reports, Standard test Reports, Information from accompanying documents and similar.

## EQUIPMENT UNDER TEST (EUT) DETAILS

MODEL (basic)	Description
TUBOABS0250M	Rigid Pipe Ø 25 mm : base classification : 1 - 1 - 3 - 1 (first four digits)
VARIANTS (derived)	Description
/	/

<b>MANUFACTURER</b>	CHT S.R.L. - VIA MAESTRI DEL LAVORO 8 - 20867 CAPONAGO - MB - I
<b>ASSEMBLY PLANT(s)</b>	

### GENERAL PRODUCT INFORMATION:

Rigid Pipe Ø 25mm; Red Colour

### COPY OF MARKING PLATE:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



## PRODUCT DOCUMENTATION

Document	Reference
-	-

## SUMMARY OF TEST

POSSIBLE TEST CASE VERDICTS:	
Test object does meet the requirement	P(ass)
Test object does not meet the requirement	F(ail)
Test case does not apply to the test object	N.A.
Test object has not been checked	N.C.

TEST PERFORMED	CLAUSE	ITEM NUMBER
Compression test	10.2	1÷3
Impact test	10.3	4÷15

## GENERAL REMARKS:

Throughout this report a point (coma) is used as the decimal separator.

Unless otherwise stated the uncertainties for the tests and measurements are evaluated in according to IMQ Operational Instruction IO-LAB-001 and IO-LAB-004

The uncertainties evaluation has been carried out in accordance with IEC Guide 115 "Application of Uncertainty of measurement's to Conformity Assessment Activity in the Electrotechnical Sector" and IECCE OD 5014.

Internal Procedure PG-037 ensure that the requirements for traceability of calibrations, of all test equipment requiring calibration, and calibration intervals are met.

The ability or reliability of this product to perform its intended function in a particular application has not been investigated.

Unless otherwise specified, warnings, installation instruction and/or user manual provided with the sample have been checked in Italian or English version only.

IMQ declines any responsibility derived from missing or wrong information provided aside by the applicant.

## REQUIREMENTS AND TESTS

<b>10.2</b>	<b>Compression test</b>		
	3 samples of conduit, each $(200 \pm 5)$ mm long, subjected to a compression test at $(23 \pm 2)$ °C, using the apparatus shown in figure 1	See appended table 10.2	P
<b>10.3</b>	<b>Impact test</b>		
	12 samples of conduit, each $(200 \pm 5)$ mm in length, or 12 samples of conduit fittings subjected to an impact test using the apparatus shown in figure 2	See appended table 10.3	P
10.3.3	At least 9 of the 12 samples passed the test		P

## TABLES

10.2 <b>TABLE: Compression test</b>									
Classification (first digit) :							1/2/3/4/5		—
Size	N° of sample	$\varnothing_{bt}$ (mm)	F (N)	$\varnothing_{at1}$ (mm)	$[\varnothing_{bt} - \varnothing_{at1} / \varnothing_{bt}] 100 \leq 25 \% (%)$	$\varnothing_{at2}$ (mm)	$[\varnothing_{bt} - \varnothing_{at2} / \varnothing_{bt}] 100 \leq 10 \% (%)$	No visible cracks (P/F)	Verdict
25	1	25,02	129,7	0,11	0,45	0,16	0,66	P	P
25	2	25,01	134,9	0,51	2,04	0,18	0,72	P	P
25	3	25,06	134,4	0,22	0,89	0,22	0,88	P	P
Supplementary information: F = Compression force, reaching the value shown in table 4 within $(30 \pm 3)$ s $\varnothing_{bt}$ = Outside diameter measured before the test $\varnothing_{at1}$ = Outside diameter measured after the force given in table 4 has been applied for $(60 \pm 2)$ s where flattening has taken place, without removing the force $\varnothing_{at2}$ = Outside diameter measured after the test where flattening has taken place, $(60 \pm 2)$ s after removal of the force given in table 4 and the intermediate piece									

10.3 <b>TABLE: Impact test</b>								
Classification (second digit) :						1/2/3/4/5		—
Test temperature (table 1) (°C) :						-15 °C		—
Mass of hammer (table 5) (kg) :						0,5 kg		—
Fall height (table 5) (mm) :						100 mm		—
Size	N° of sample	Check of possibility to pass the gauge of figure 102 through the sample		No sign of disintegration / No visible cracks		Total n° of samples which passed the test	Verdict	
		N° of samples which passed the test	N° of samples which failed the test	N° of samples which passed the test	N° of samples which failed the test			
25	1-12	12	0	12	0	12	P	
Supplementary information:								

## MEASUREMENT EQUIPMENT AND INSTRUMENTATION

Instrument	Manufacturer	Model	IMQ Ref.
VERNIER CALIPER	MITUTOYO	522-601	S03426
DIGITAL CRONOMETER	RS	STOP CLOCK 5500	S03414
DYNAMOMETER	INSTRON	4301	P00470
TEMPERATURE CAMERA	ACS ANGELANTONI	CHALLENGE TC 600	P02107



