



TEST REPORT

IEC 61386-25

Conduit systems for cable management

Part 25: Particular requirements - Conduit fixing devices

Report Number: TGM-VA EE 37207 SFT1

Date of issue: 2017-07-03

Total number of pages.....: 19

Applicant's name.....: Schnabl Stecktechnik GmbH

Address: Bahnhofplatz 1, Postfach 63
A-3100 St. Pölten

Test specification:

Standard: IEC 61386-25:2011 (First Edition) used in conjunction with
IEC 61386-1:2008 (Second Edition)

Test procedure: CB Scheme

Non-standard test method.....: N/A

Test Report Form No.....: IEC61386_25A

Test Report Form(s) Originator: OVE

Master TRF: Dated 2013-08

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Test item description: conduit fixing device


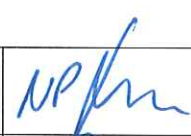
Trade Mark:



Manufacturer: Miraplast GmbH
A-3042 Würmla, Schloßweg 1

Model/Type reference.....: FC 16-20 (Art.Nr.: 13310 or 33310), FC 20-25 (Art.Nr.: 13320 or 33320), FC 25-32 (Art.Nr.: 13330 or 33330)

Ratings: resistance to lateral load: heavy
resistance to Impact: medium
constant temperature for installation and use: -25 °C to 60 °C

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Staatliche Versuchsanstalt – TGM
Testing location/ address :		Elektrotechnik und Elektronik A-1200 Wien, Wexstrasse 19-23
		
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address :		
Tested by (name + signature)..... :	Nico Putsche	
Approved by (name + signature)..... :	Dominic Litzka	
<input type="checkbox"/>	Testing procedure: TMP	
Testing location/ address :		
Tested by (name + signature) :		
Approved by (name + signature) :		
<input type="checkbox"/>	Testing procedure: WMT	
Testing location/ address :		
Tested by (name + signature) :		
Witnessed by (name + signature).... :		
Approved by (name + signature) :		
<input type="checkbox"/>	Testing procedure: SMT	
Testing location/ address :		
Tested by (name + signature) :		
Approved by (name + signature) :		
Supervised by (name + signature) .. :		

List of Attachments (including a total number of pages in each attachment): -

Summary of testing:

Tests performed (name of test and test clause):

clause 7: MARKING AND DOCUMENTATION

clause 8: DIMENSIONS

clause 9: CONSTRUCTION

clause 10: MECHANICAL PROPERTIES

clause 10.3: Impact test

clause 10.101 : Lateral load test

clause 13: FIRE HAZARD

Testing location:

Staatliche Versuchsanstalt – TGM
Elektrotechnik und Elektronik
A-1200 Wien, Wexstrasse 19-23

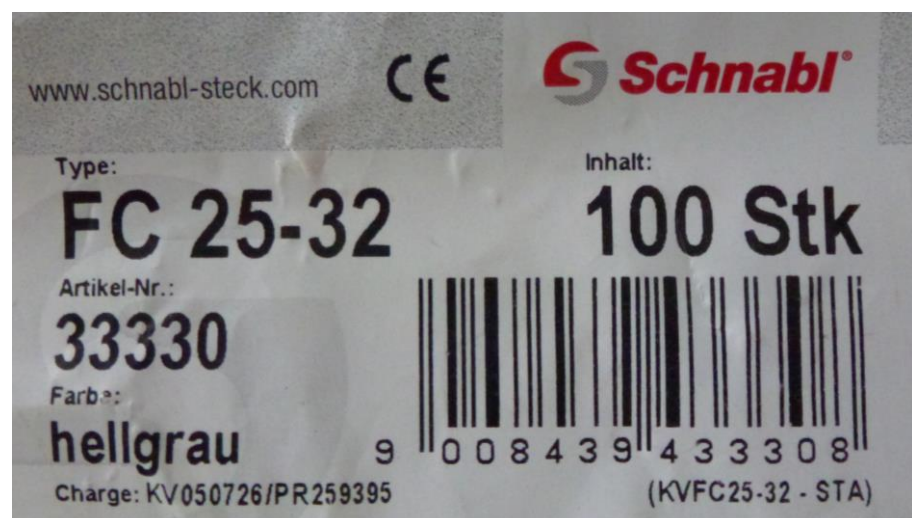
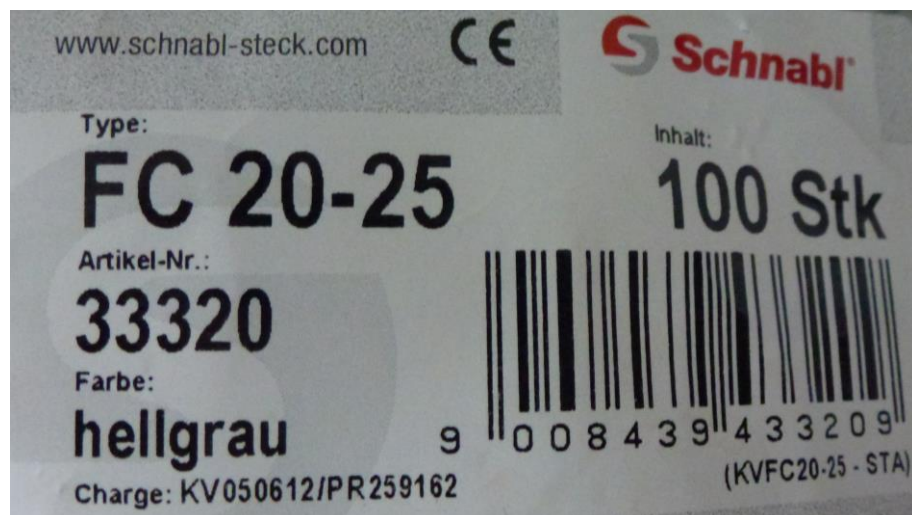
Summary of compliance with National Differences

List of countries addressed: -

The product fulfils the requirements of IEC 61386-25:2011 (First Edition) used in conjunction with IEC 61386-1:2008 (Second Edition) and EN 61386-25:2011 used in conjunction with EN 61386-1:2008.

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.



Test item particulars:	
Conduit fixing device classification coding :	4341-10
Conduit type designation	-
Material – conduit.....	<input type="checkbox"/> Metallic <input type="checkbox"/> Non-metallic <input type="checkbox"/> Composite
Type of conduit.....	<input type="checkbox"/> Plain <input type="checkbox"/> Corrugated
Material – conduit fixing device	<input type="checkbox"/> Metallic <input checked="" type="checkbox"/> Non-metallic <input type="checkbox"/> Composite
Conduit fixing device – quantity	3
Conduit fixing device – type(s).....	FC 16-20 (Art.Nr.: 13310 or 33310), FC 20-25 (Art.Nr.: 13320 or 33320), FC 25-32 (Art.Nr.: 13330 or 33330)
Conduit fixing device – colour(s)	light grey
Resistance to impact	<input type="checkbox"/> Light <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Heavy <input type="checkbox"/> Very heavy
Resistance to lateral load.....	<input type="checkbox"/> Light <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Heavy
Resistance to axial load	<input type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy <input type="checkbox"/> Very heavy
Lower / Upper temperature range	-25 °C / 60 °C
Resistance against corrosion.....	<input checked="" type="checkbox"/> Without protection <input type="checkbox"/> With protection:
Resistance to flame propagation	<input checked="" type="checkbox"/> Non-flame propagating <input type="checkbox"/> Flame propagating
Possible test case verdicts:	
- test case does not apply to the test object:	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement:	F (Fail)
Testing	
Date of receipt of test item	2017-05-12
Date(s) of performance of tests.....	cw 22-26/2017
General remarks:	
<p>The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.</p>	
<p>Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.</p>	

Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60332-1:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided : –




Yes
 Not applicable

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies).....: Miraplast GmbH
A-3042 Würmla, Schloßweg 1

General product information:

Conduit fixing devices made of insulating material:
material designation: PP 400 GA03
colour: light grey
classification code: 4341-10
type designation: FC 16-20 (Art.Nr.: 13310 or 33310), FC 20-25 (Art.Nr.: 13320 or 33320),
FC 25-32 (Art.Nr.: 13330 or 33330)
range of use: FC 16-20 (Art.Nr.: 13310 or 33310) for conduit size 16 and 20;
FC 20-25 (Art.Nr.: 13320 or 33320) for conduit size 20 and 25;
FC 25-32 (Art.Nr.: 13330 or 33330) for conduit size 25 and 32

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
7	MARKING AND DOCUMENTATION		—
7.1	Conduit fixing devices marked on the product with a trade mark or a name identifying the manufacturer or responsible vendor		P
	Conduit fixing devices marked in addition in such a way that it can be identified in the manufacturer's, or responsible vendor's, literature	FC 16-20 (Art.Nr.: 13310 or 33310), FC 20-25 (Art.Nr.: 13320 or 33320), FC 25-32 (Art.Nr.: 13330 or 33330)	P
7.1.1	Manufacturer indicates the compatibility within the conduit system in accordance with IEC 61386 series :		P
7.1.2	Manufacturer provides in his literature the classification and all necessary information for transport, storage, installation and use		P
7.2	Conduit fixing device is marked in accordance with 7.1, on		P
	- the product	 FC 16-20, FC 20-25, FC 25-32	P
	- a label attached to the product, or on the box or carton containing the fittings (if the marking on the product is impractical)	 FC 16-20 (Art.Nr.: 13310 or 33310), FC 20-25 (Art.Nr.: 13320 or 33320), FC 25-32 (Art.Nr.: 13330 or 33330)	P
7.3	Flame propagating material is orange in colour		N/A
	Sub-clause of part 1 not applicable		—
7.4	Earthing facilities are indicated by the symbol for protective earth in accordance with IEC 60417, symbol 60417-IEC-5019-a		N/A
	Sub-clause of part 1 not applicable		—
7.5	Compliance with 7.1 to 7.2 checked by inspection		P
7.6	Marking is durable and clearly legible		P
	Compliance checked by inspection and by rubbing the marking by hand for 15 s with a piece of cloth soaked with water, and again for 15 s with a piece of cloth soaked with petroleum spirit		P
8	DIMENSIONS		—
	Conduit fixing devices are capable of accommodating the size or range of conduit diameters as declared by the manufacturer	See appended table 8	P

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
9	CONSTRUCTION		—
9.1	There are no sharp edges, burrs or surface projections which damage the conduit system		P
	Or inflict injury on the installer or user		P
9.2	Fixing means designed to withstand the mechanical stresses occurring during installation and use		P
	Screws, if any, used for assembly of the fixing device, do not cause damage to the conduit system components when correctly assembled		N/A
	Screw fixing using preformed threads checked by clause 9.3		N/A
	Screw fixing using thread-forming screws checked by clause 9.4 and inspection		N/A
	Reusable fixing other than screws checked by assembly and removal ten times		P
	Non-reusable fixing checked by assembly		N/A
9.3	Test for screw fixing using preformed threads	See appended table 9.3	N/A
	After the test: no damage sustained by the screw or nut, such as breakage of the screw or damage to the head or thread		N/A
9.4	Test for screw fixing using thread-forming screws	See appended table 9.4	N/A
	After the test: no damage, such as breakage of the screw or damage to the head or thread		N/A
10	MECHANICAL PROPERTIES		—
10.1	Mechanical strength		P
10.1.1	Conduit fixing devices have adequate mechanical strength		P
10.1.2	Compliance of 10.1.1 checked by the tests specified in 10.3, 10.101 and 10.102		P
10.2	Compression test		N/A
	Sub-clause of part 1 not applicable		—
10.3	Impact test		P
	12 assemblies of the conduit fixing device and a steel mandrel or conduit are 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
10.4	Bending test		N/A
	Sub-clause of part 1 not applicable		—

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
10.5	Flexing test		N/A
	Sub-clause of part 1 not applicable		—
10.6	Collapse test		N/A
	Sub-clause of part 1 not applicable		—
10.7	Tensile test		N/A
	Sub-clause of part 1 not applicable		—
10.8	Suspended load test		N/A
	Sub-clause of part 1 not applicable		—
10.101	Lateral load test		P
10.101.1	Two conduit fixing devices mounted as shown in Figure 101 or Figure 102		P
	Conduit fixing devices can be used with any type of conduit – steel mandrel		P
	Conduit fixing devices can only be used with a specific type of conduit as declared by the manufacturer		N/A
10.101.2	Metallic conduit fixing devices tested at ambient temperature, load applied without shock 300 s +10/0 s	See appended table 10.101	N/A
10.101.3	Non-metallic conduit fixing devices tested at declared maximum temperature, load applied without shock 60 min +5/0 min	See appended table 10.101	P
10.101.4	Conduit is still supported by fixing device		P
10.102	Axial load test		N/A
10.102.1	Conduit fixing devices can be used with any type of conduit – steel mandrel		N/A
	The mandrel and the conduit fixing device is mounted in accordance with the manufacturer's instructions and figure 103		N/A
	Conduit fixing devices can only be used with a specific type of conduit as declared by the manufacturer		N/A
	A sample conduit and the conduit fixing device is mounted in accordance with the manufacturer's instructions and figure 103		N/A
	Metallic conduit fixing devices tested at ambient temperature, load applied without shock 300 s +10/0 s	See appended table 10.102	N/A
	Non-metallic conduit fixing devices tested at declared maximum temperature, load applied without shock 300 s +10/0 s	See appended table 10.102	N/A

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
10.102.2	After the test the conduit remain properly assembled to the conduit fixing device, have no displacement more than 2 mm through the fixing device and no visible damage		N/A
11	ELECTRICAL PROPERTIES		—
	Clause of part 1 not applicable		—
12	THERMAL PROPERTIES		—
	Clause of part 1 not applicable		—
13	FIRE HAZARD		—
13.1	Reaction to fire		P
13.1.1	Initiation of fire (not applicable)		—
13.1.2	Contribution to fire (under consideration)		—
13.1.3	Spread of fire		P
	Non-flame propagating conduit systems have adequate resistance to flame propagation		P
13.1.3.1	Non-metallic and composite conduit fixing devices subjected to glow-wire test of IEC 60695-2-1/1 (IEC 60695-2-11) at 650 °C		P
	No visible flame or sustained glowing,	See appended table 13.1.3.1	P
	Flames and glowing extinguished within 30 s of the removal of the glow-wire (s)	See appended table 13.1.3.1	N/A
13.1.3.2	Non-metallic and composite conduits subjected to 1 kW flame of IEC 60695-2-4/1 (IEC 60695-11-2), according to the arrangement of figure 7, applied for the period given in table 11		N/A
	Sub-clause of part 1 not applicable		—
13.1.4	Additional reaction to fire characteristics (under consideration)		—
13.2	Resistance to fire (not applicable)		—
14	EXTERNAL INFLUENCES		—
14.1	Degree of protection provided by enclosure		N/A
	Conduit systems, when assembled in accordance with the manufacturer's instructions, have adequate resistance to external influences according to the classification declared by the manufacturer		N/A
14.1.1	Degree of protection – Ingress of foreign solid objects		N/A
	Sub-clause of part 1 not applicable		—

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
14.1.2	Degree of protection – Ingress of water		N/A
	Sub-clause of part 1 not applicable		—
14.2	Resistance against corrosion		N/A
14.2.1	Resistance to corrosion classification for painted and zinc coated steel and steel composite conduit fixing devices (table 10).....: 1/2/3/4		—
	For non-ferrous metallic and composite conduit fixing devices, the manufacturer provided information about its protection against corrosion		N/A
14.2.2	Tests for resistance to corrosion for painted and zinc coated steel and steel composite conduit fixing devices		N/A
14.2.2.1	Low protection conduit fixing devices inspected for completeness of covering by the protective coating, both inside and outside		N/A
14.2.2.2	Test for medium protection conduit fixing devices: after completion of the test, the samples showed no more than two blue coloured spots on each square centimetre of the surface, and no blue spot had a dimension larger than 1,5 mm		N/A
14.2.2.3	Test for high protection conduit fixing devices: after the test, the sample showed no precipitation of copper which cannot be scrubbed off in running water, if necessary after immersion for 15 s in a 10% solution of hydrochloric acid in water		N/A
15	ELECTROMAGNETIC COMPATIBILITY		—
	Products covered by this standards are, in normal use, passive in respect of electromagnetic influences (emission and immunity)		N/A

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict

8	TABLE: Dimensions			—
Type of fixing device	Conduit diameters declared by the manufacturer (mm)	Fixing device accommodate the declared conduit diameters (Y/N)		Verdict
FC 16-20	16, 20	Y		P
FC 20-25	20, 25	Y		P
FC 25-32	25, 32	Y		P
Supplementary information: -				

9.3	TABLE: Screw test (screw fixing using preformed threads)				—
Threaded part identification	Nominal diameter of thread (mm)	Column number of table 3 (I or II)	Applied torque (Nm)	Times (5/10)	Verdict
-	-	-	-	-	N/A
Supplementary information: -					

9.4	TABLE: Screw test (screw fixing using thread-forming screws)				—
Threaded part identification	Nominal diameter of thread (mm)	Column number of table 3 (I or II)	Applied torque (Nm)	Times (5/10)	Verdict
-	-	-	-	-	N/A
Supplementary information: -					

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict

10.3	TABLE: Impact test						—
	Classification (second digit)	3					—
	Test temperature (table 1) (°C)	-25 °C					—
	Mass of hammer (table 5) (kg)	2 kg					—
	Fall height (table 5) (mm)	100 mm					—
	Test performed with.....	steel mandrel / conduit					—
Type	N° of sample	Mandrel or conduit remain inside the fixing device		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		
FC 16-20	1-12	12	0	12	0	12	P
FC 20-25	1-12	12	0	12	0	12	P
FC 25-32	1-12	12	0	12	0	12	P
Supplementary information: -							

10.101	TABLE: Lateral load test						—
	Classification (resistance to lateral load)	4					—
	Temperature during the test (°C)	60°C					—
	Test duration	300 s / 60 min					—
Type	N° of sample	Test performed with (conduit / mandrel)	Minimum diameter of size (mm)	Load (kg)	Mounting (wall / ceiling)	Conduit / Mandrel still supported by the fixing device (P/F)	Verdict
FC 16-20	1-3	mandrel	16	3,2	wall	P	P
FC 16-20	4-6	mandrel	16	3,2	ceiling	P	P
FC 16-20	1-3	mandrel	20	4,0	wall	P	P
FC 16-20	4-6	mandrel	20	4,0	ceiling	P	P
FC 20-25	1-3	mandrel	20	4,0	wall	P	P
FC 20-25	4-6	mandrel	20	4,0	ceiling	P	P
FC 20-25	1-3	mandrel	25	8,0	wall	P	P
FC 20-25	4-6	mandrel	25	8,0	ceiling	P	P

IEC 61386-25							
Clause	Requirement + Test			Result - Remark			Verdict
Type	N° of sample	Test performed with (conduit / mandrel)	Minimum diameter of size (mm)	Load (kg)	Mounting (wall / ceiling)	Conduit / Mandrel still supported by the fixing device (P/F)	Verdict
FC 25-32	1-3	mandrel	25	8,0	wall	P	P
FC 25-32	4-6	mandrel	25	8,0	ceiling	P	P
FC 25-32	1-3	mandrel	32	13,2	wall	P	P
FC 25-32	4-6	mandrel	32	13,2	ceiling	P	P
Supplementary information: -							

10.102	TABLE: Axial load test						—
	Temperature during the test (°C)				-		—
Type	N° of sample	Test performed with (conduit / mandrel)	Minimum diameter of size (mm)	Load (kg)	displacement (mm)	Conduit / Mandrel remain properly assembled – no damage (P/F)	Verdict
-	-	-	-	-	-	-	N/A
Supplementary information: -							

13.1.3.1	TABLE: Glow-wire test (non-metallic and composite conduit fixing devices)					—
	Material designation			PP 400 GA03		—
	Test temperature (°C)			650 °C		—
Size	N° of sample	Art./Type Ref. of the conduit fixing devices	Visible flame or sustained glowing (Y/N)	Time of extinguishment of flames and glowing, if any, after removal of the glow-wire (s)		Verdict
16-20	1-3	FC 16-20	N	-		P
20-25	1-3	FC 20-25	N	-		P
25-32	1-3	FC 25-32	N	-		P
Supplementary information: colour: light grey						

List of test equipment used:

(Note: This is an example of the required attachment. Other forms with a different layout but containing similar information are also acceptable.)

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Last Calibration date
8	dimensions	SW.00.682 / steel mandrel	16, 20, 25, 32	-
		SW 00.505 / slide gauge	150 mm	2015-09
10.3	impact test	SW.00.360 / climate chamber	-25°C	2016-09
		SW.00.632 / measuring tape	5 m	2015-03
		SW.00.682 / steel mandrel	-	-
		SW 00.505 / slide gauge	150 mm	2015-09
		SW.00.600 / impact test apparatus	-	2014-10
		SW.00.622 / weights	2 kg	2016-04
		SW.00.743 / stop watch	-	2017-01
10.101	lateral load test	SW.00.360 / climate chamber	60 °C	2016-09
		SW.00.632 / measuring tape	5 m	2015-03
		SW.00.682 / steel mandrel	-	-
		SW 00.505 / slide gauge	150 mm	2015-09
		SW.00.063 / scale	-	2017-02
		SW.00.622 / weights	-	2016-04
		SW.00.743 / stop watch	-	2017-01
		SW.00.554 / water level	-	2015-08
13	fire effects	HG.00.425 / temperature measuring device	650 °C	2015-10
		HG.00.272 / glow wire test apparatus	-	-
		SW.00.743 / stop watch	-	2017-01
		SW 00.505 / slide gauge	150 mm	2015-09
		HG.00.350H, HG.00.380N / measurement of dimensions	-	2015-09
		HG.00.342Ü / force meter	5N	2015-09
		TK.00.076H / tissue paper	-	-
all		TK.00.064Ü / climate measuring device	-	2016-11

figure 1: FC 16-20, FC 20-25, FC 25-32 (overview)

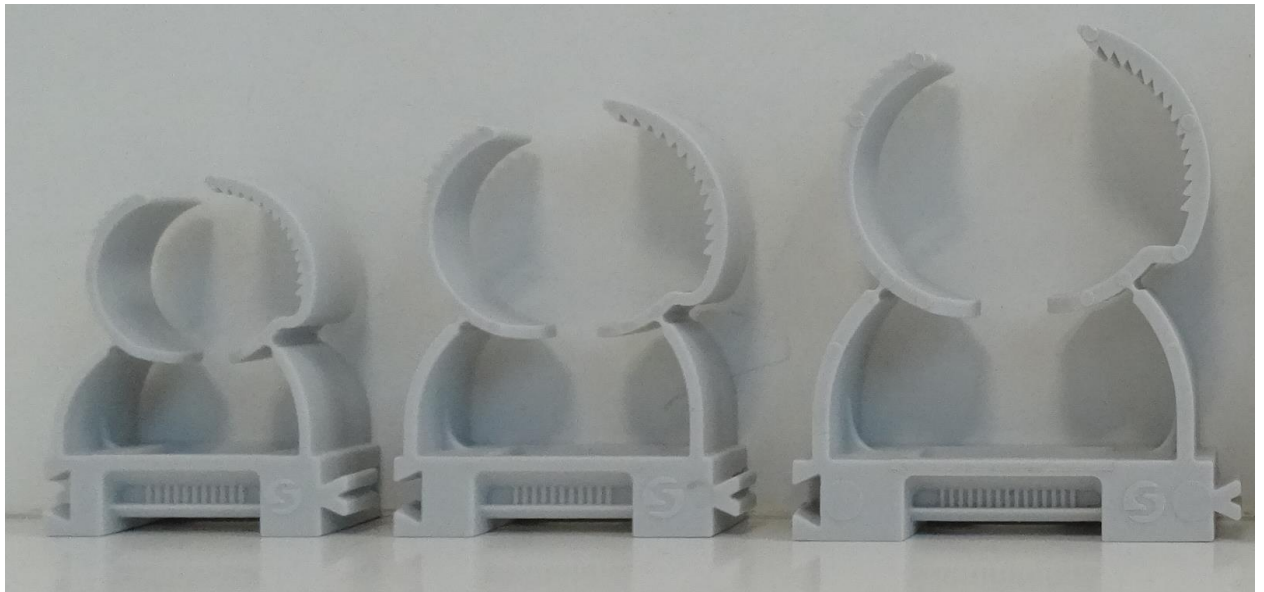


figure 2: FC 16-20 (marking)

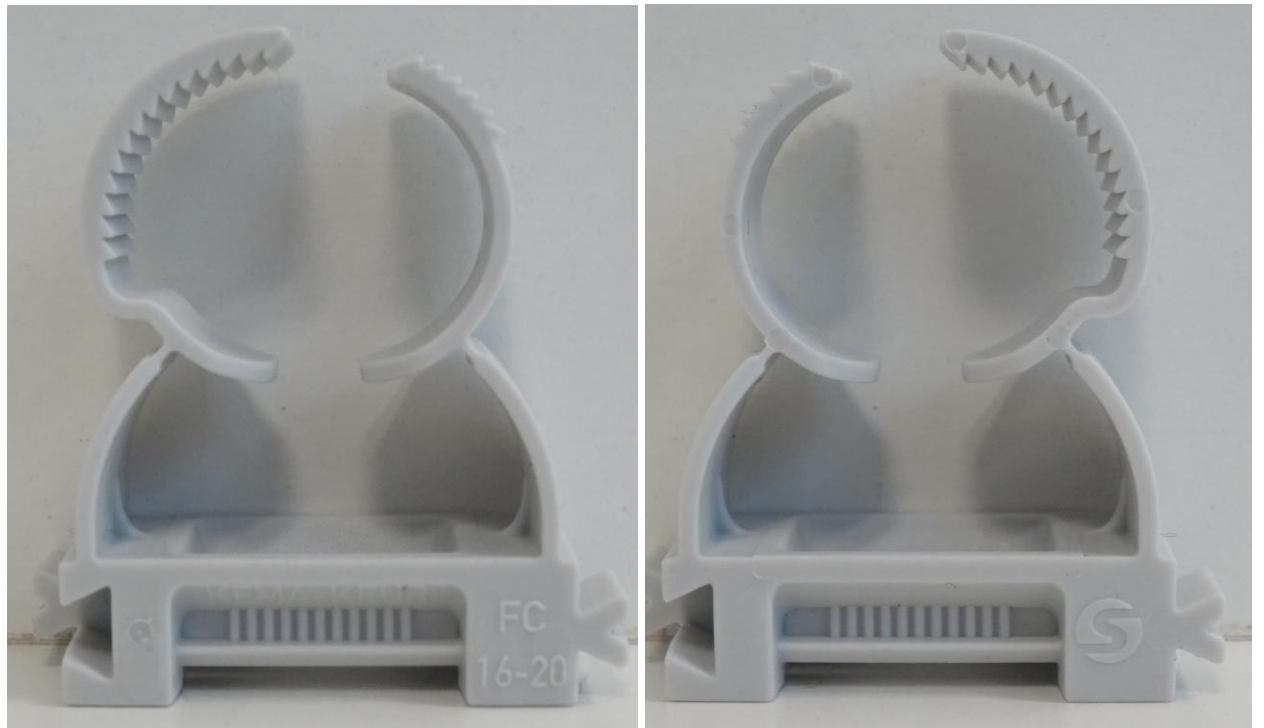


figure 3: FC 16-20 (dimensions)

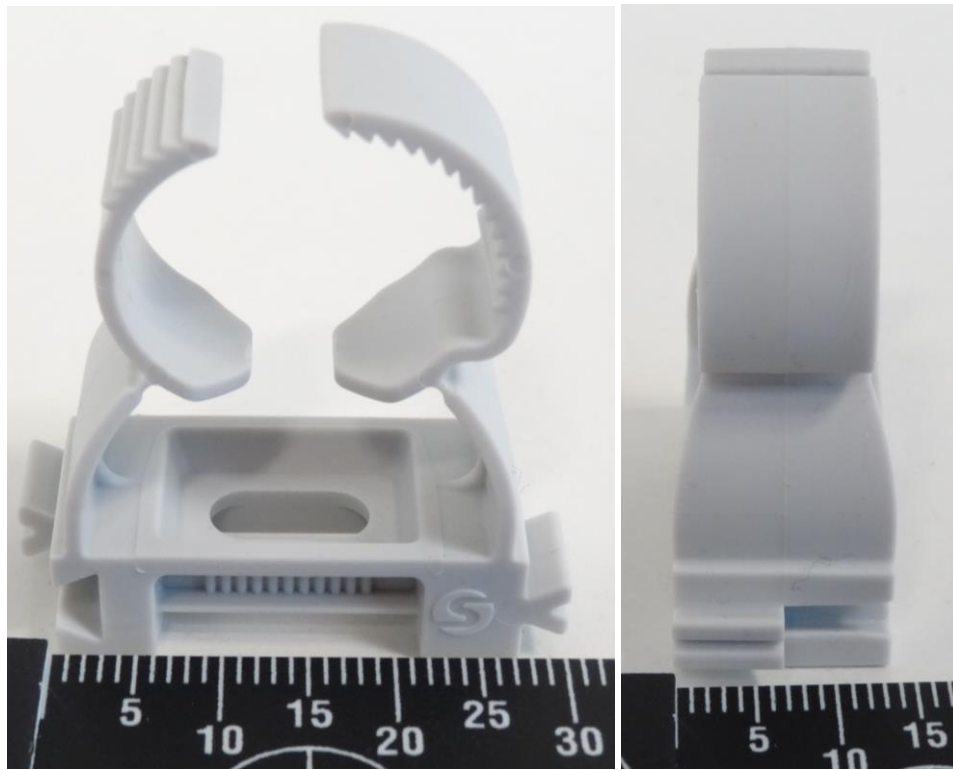


figure 4: FC 16-20 (dimensions)

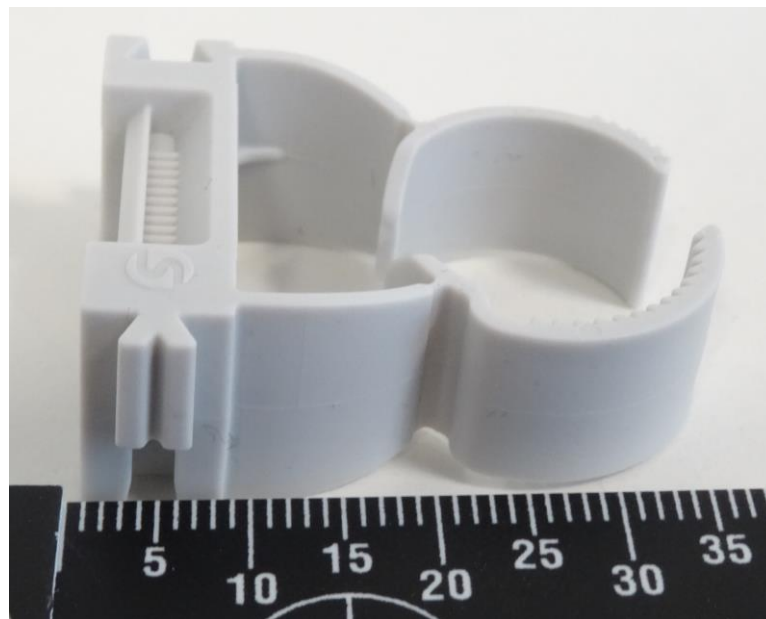


figure 5: FC 20-25 (dimensions)

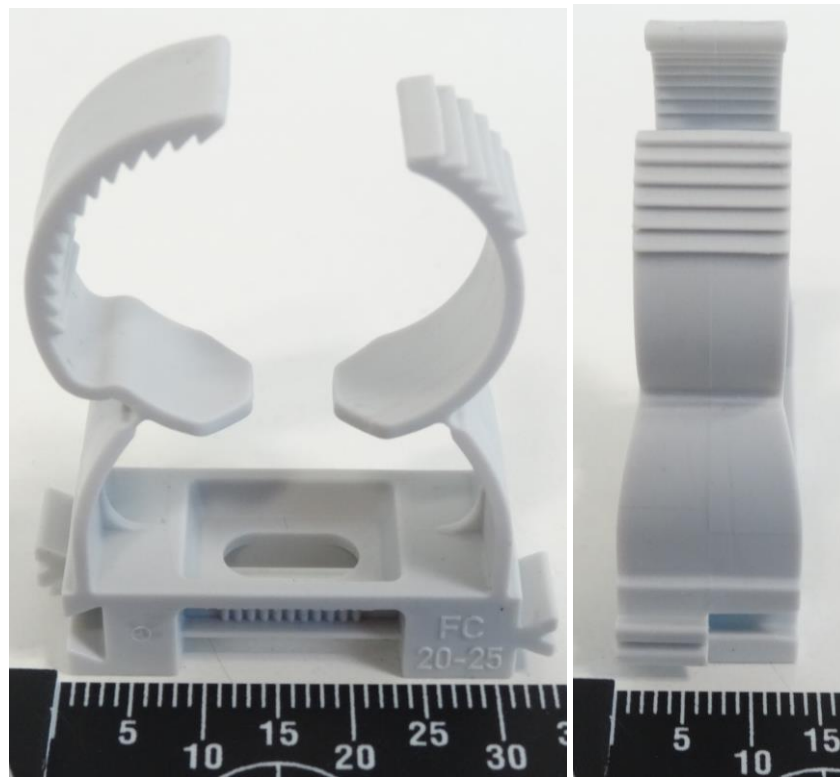


figure 6: FC 20-25 (dimensions)

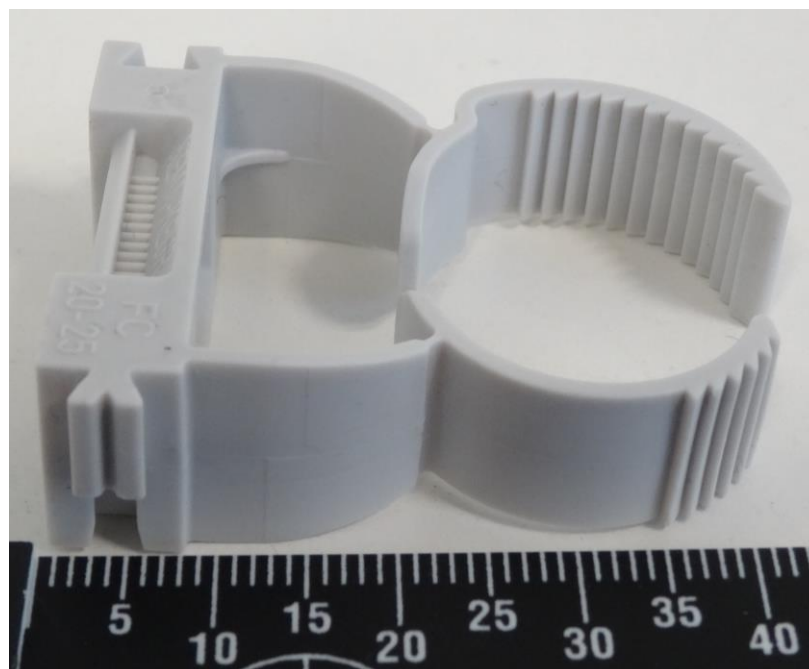


figure 7: FC 25-32 (dimensions)

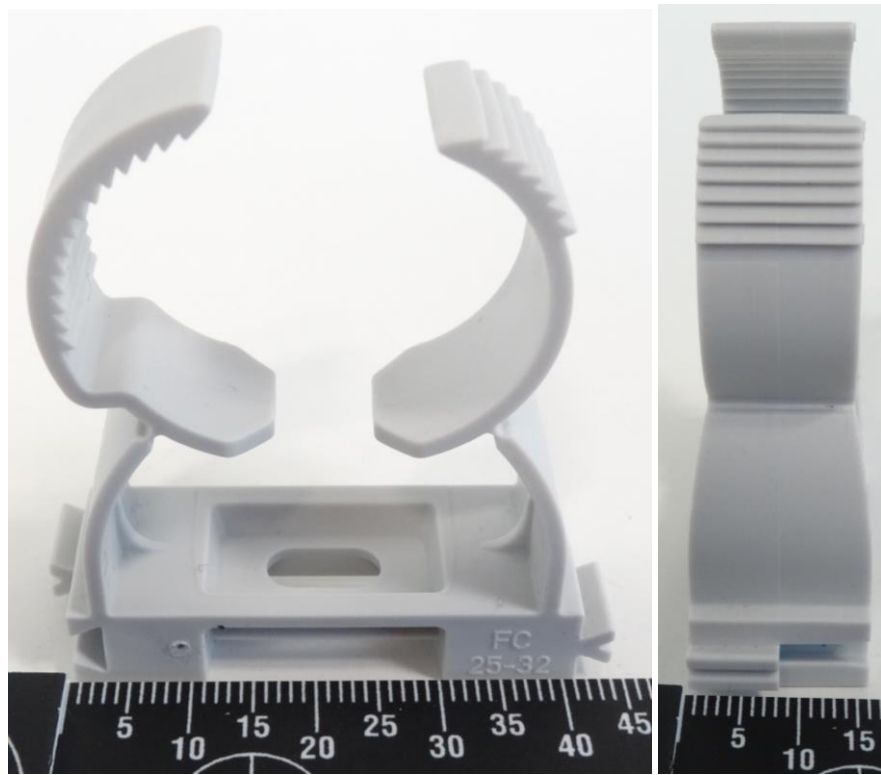
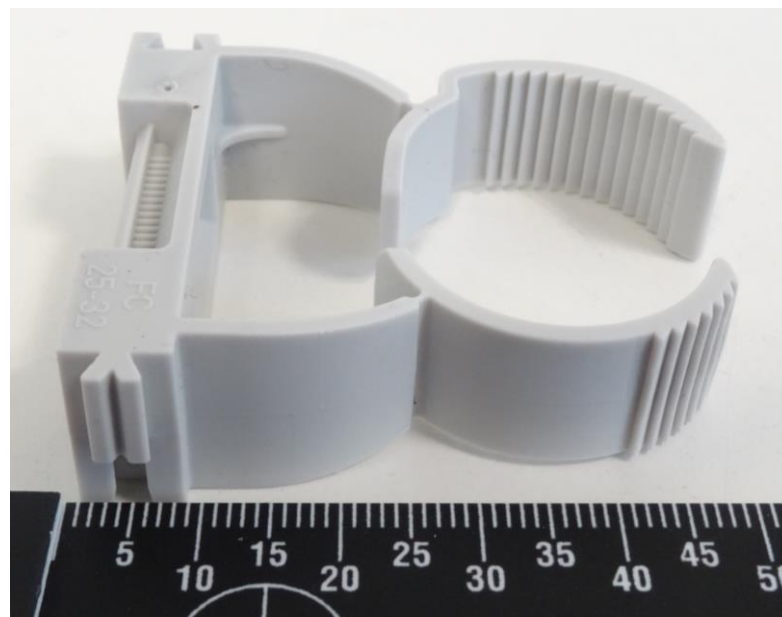


figure 8: FC 25-32 (dimensions)





TEST REPORT

IEC 61386-25

Conduit systems for cable management

Part 25: Particular requirements - Conduit fixing devices

Report Number: TGM-VA EE 37207 SFT2

Date of issue: 2017-07-03

Total number of pages.....: 17

Applicant's name.....: Schnabl Stecktechnik GmbH

Address: Bahnhofplatz 1, Postfach 63
A-3100 St. Pölten

Test specification:

Standard: IEC 61386-25:2011 (First Edition) used in conjunction with
IEC 61386-1:2008 (Second Edition)

Test procedure: CB Scheme

Non-standard test method.....: N/A

Test Report Form No.....: IEC61386_25A

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Master TRF: Dated 2013-08

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Test item description: conduit fixing device


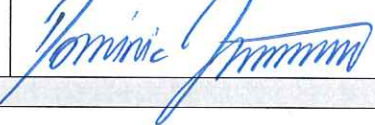
Trade Mark:



Manufacturer: Miraplast GmbH
A-3042 Würmla, Schloßweg 1

Model/Type reference.....: FC 32-40 (Art.Nr.: 13340 or 33340)

Ratings: resistance to lateral load: medium
resistance to Impact: medium
constant temperature for installation and use: -25 °C to 60 °C

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Staatliche Versuchsanstalt – TGM
Testing location/ address :		Elektrotechnik und Elektronik A-1200 Wien, Wexstrasse 19-23
		
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address :		
Tested by (name + signature)..... :	Nico Putsche	
Approved by (name + signature)..... :	Dominic Litzka	
<input type="checkbox"/>	Testing procedure: TMP	
Testing location/ address :		
Tested by (name + signature) :		
Approved by (name + signature) :		
<input type="checkbox"/>	Testing procedure: WMT	
Testing location/ address :		
Tested by (name + signature) :		
Witnessed by (name + signature)..... :		
Approved by (name + signature) :		
<input type="checkbox"/>	Testing procedure: SMT	
Testing location/ address :		
Tested by (name + signature) :		
Approved by (name + signature) :		
Supervised by (name + signature) .. :		

List of Attachments (including a total number of pages in each attachment): -

Summary of testing:

Tests performed (name of test and test clause):

clause 7: MARKING AND DOCUMENTATION

clause 8: DIMENSIONS

clause 9: CONSTRUCTION

clause 10: MECHANICAL PROPERTIES

clause 10.3: Impact test

clause 10.101 : Lateral load test

clause 13: FIRE HAZARD

Testing location:

Staatliche Versuchsanstalt – TGM
Elektrotechnik und Elektronik
A-1200 Wien, Wexstrasse 19-23

Summary of compliance with National Differences

List of countries addressed: -

The product fulfils the requirements of IEC 61386-25:2011 (First Edition) used in conjunction with IEC 61386-1:2008 (Second Edition) and EN 61386-25:2011 used in conjunction with EN 61386-1:2008.

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.



Test item particulars:	
Conduit fixing device classification coding :	3341-10
Conduit type designation	-
Material – conduit.....	<input type="checkbox"/> Metallic <input type="checkbox"/> Non-metallic <input type="checkbox"/> Composite
Type of conduit.....	<input type="checkbox"/> Plain <input type="checkbox"/> Corrugated
Material – conduit fixing device	<input type="checkbox"/> Metallic <input checked="" type="checkbox"/> Non-metallic <input type="checkbox"/> Composite
Conduit fixing device – quantity	1
Conduit fixing device – type(s).....	FC 32-40 (Art.Nr.: 13340 or 33340)
Conduit fixing device – colour(s).....	light grey
Resistance to impact	<input type="checkbox"/> Light <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Heavy <input type="checkbox"/> Very heavy
Resistance to lateral load.....	<input type="checkbox"/> Light <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Heavy
Resistance to axial load	<input type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy <input type="checkbox"/> Very heavy
Lower / Upper temperature range	-25 °C / 60 °C
Resistance against corrosion.....	<input checked="" type="checkbox"/> Without protection <input type="checkbox"/> With protection:
Resistance to flame propagation	<input checked="" type="checkbox"/> Non-flame propagating <input type="checkbox"/> Flame propagating
Possible test case verdicts:	
- test case does not apply to the test object:	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement:	F (Fail)
Testing	
Date of receipt of test item	2017-05-12
Date(s) of performance of tests.....	cw 22-26/2017
General remarks:	
<p>The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.</p>	
<p>Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.</p>	

Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60384-1:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided : –




Yes
 Not applicable

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies).....: Miraplast GmbH
A-3042 Würmla, Schloßweg 1

General product information:

Conduit fixing devices made of insulating material:
material designation: PP 400 GA03
colour: light grey
classification code: 3341-10
type designation: FC 32-40 (Art.Nr.: 13340 or 33340)
range of use: FC 32-40 (Art.Nr.: 13340 or 33340) for conduit size 32 and 40

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
7	MARKING AND DOCUMENTATION		—
7.1	Conduit fixing devices marked on the product with a trade mark or a name identifying the manufacturer or responsible vendor		P
	Conduit fixing devices marked in addition in such a way that it can be identified in the manufacturer's, or responsible vendor's, literature	FC 32-40 (Art.Nr.: 13340 or 33340)	P
7.1.1	Manufacturer indicates the compatibility within the conduit system in accordance with IEC 61386 series :		P
7.1.2	Manufacturer provides in his literature the classification and all necessary information for transport, storage, installation and use		P
7.2	Conduit fixing device is marked in accordance with 7.1, on		P
	- the product	 FC 32-40	P
	- a label attached to the product, or on the box or carton containing the fittings (if the marking on the product is impractical)	 FC 32-40 (Art.Nr.: 13340 or 33340)	P
7.3	Flame propagating material is orange in colour		N/A
	Sub-clause of part 1 not applicable		—
7.4	Earthing facilities are indicated by the symbol for protective earth in accordance with IEC 60417, symbol 60417-IEC-5019-a		N/A
	Sub-clause of part 1 not applicable		—
7.5	Compliance with 7.1 to 7.2 checked by inspection		P
7.6	Marking is durable and clearly legible		P
	Compliance checked by inspection and by rubbing the marking by hand for 15 s with a piece of cloth soaked with water, and again for 15 s with a piece of cloth soaked with petroleum spirit		P
8	DIMENSIONS		—
	Conduit fixing devices are capable of accommodating the size or range of conduit diameters as declared by the manufacturer	See appended table 8	P

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
9	CONSTRUCTION		—
9.1	There are no sharp edges, burrs or surface projections which damage the conduit system		P
	Or inflict injury on the installer or user		P
9.2	Fixing means designed to withstand the mechanical stresses occurring during installation and use		P
	Screws, if any, used for assembly of the fixing device, do not cause damage to the conduit system components when correctly assembled		N/A
	Screw fixing using preformed threads checked by clause 9.3		N/A
	Screw fixing using thread-forming screws checked by clause 9.4 and inspection		N/A
	Reusable fixing other than screws checked by assembly and removal ten times		P
	Non-reusable fixing checked by assembly		N/A
9.3	Test for screw fixing using preformed threads	See appended table 9.3	N/A
	After the test: no damage sustained by the screw or nut, such as breakage of the screw or damage to the head or thread		N/A
9.4	Test for screw fixing using thread-forming screws	See appended table 9.4	N/A
	After the test: no damage, such as breakage of the screw or damage to the head or thread		N/A
10	MECHANICAL PROPERTIES		—
10.1	Mechanical strength		P
10.1.1	Conduit fixing devices have adequate mechanical strength		P
10.1.2	Compliance of 10.1.1 checked by the tests specified in 10.3, 10.101 and 10.102		P
10.2	Compression test		N/A
	Sub-clause of part 1 not applicable		—
10.3	Impact test		P
	12 assemblies of the conduit fixing device and a steel mandrel or conduit are 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
10.4	Bending test		N/A
	Sub-clause of part 1 not applicable		—

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
10.5	Flexing test		N/A
	Sub-clause of part 1 not applicable		—
10.6	Collapse test		N/A
	Sub-clause of part 1 not applicable		—
10.7	Tensile test		N/A
	Sub-clause of part 1 not applicable		—
10.8	Suspended load test		N/A
	Sub-clause of part 1 not applicable		—
10.101	Lateral load test		P
10.101.1	Two conduit fixing devices mounted as shown in Figure 101 or Figure 102		P
	Conduit fixing devices can be used with any type of conduit – steel mandrel		P
	Conduit fixing devices can only be used with a specific type of conduit as declared by the manufacturer		N/A
10.101.2	Metallic conduit fixing devices tested at ambient temperature, load applied without shock 300 s +10/0 s	See appended table 10.101	N/A
10.101.3	Non-metallic conduit fixing devices tested at declared maximum temperature, load applied without shock 60 min +5/0 min	See appended table 10.101	P
10.101.4	Conduit is still supported by fixing device		P
10.102	Axial load test		N/A
10.102.1	Conduit fixing devices can be used with any type of conduit – steel mandrel		N/A
	The mandrel and the conduit fixing device is mounted in accordance with the manufacturer's instructions and figure 103		N/A
	Conduit fixing devices can only be used with a specific type of conduit as declared by the manufacturer		N/A
	A sample conduit and the conduit fixing device is mounted in accordance with the manufacturer's instructions and figure 103		N/A
	Metallic conduit fixing devices tested at ambient temperature, load applied without shock 300 s +10/0 s	See appended table 10.102	N/A
	Non-metallic conduit fixing devices tested at declared maximum temperature, load applied without shock 300 s +10/0 s	See appended table 10.102	N/A

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
10.102.2	After the test the conduit remain properly assembled to the conduit fixing device, have no displacement more than 2 mm through the fixing device and no visible damage		N/A
11	ELECTRICAL PROPERTIES		—
	Clause of part 1 not applicable		—
12	THERMAL PROPERTIES		—
	Clause of part 1 not applicable		—
13	FIRE HAZARD		—
13.1	Reaction to fire		P
13.1.1	Initiation of fire (not applicable)		—
13.1.2	Contribution to fire (under consideration)		—
13.1.3	Spread of fire		P
	Non-flame propagating conduit systems have adequate resistance to flame propagation		P
13.1.3.1	Non-metallic and composite conduit fixing devices subjected to glow-wire test of IEC 60695-2-1/1 (IEC 60695-2-11) at 650 °C		P
	No visible flame or sustained glowing,	See appended table 13.1.3.1	P
	Flames and glowing extinguished within 30 s of the removal of the glow-wire (s)	See appended table 13.1.3.1	N/A
13.1.3.2	Non-metallic and composite conduits subjected to 1 kW flame of IEC 60695-2-4/1 (IEC 60695-11-2), according to the arrangement of figure 7, applied for the period given in table 11		N/A
	Sub-clause of part 1 not applicable		—
13.1.4	Additional reaction to fire characteristics (under consideration)		—
13.2	Resistance to fire (not applicable)		—
14	EXTERNAL INFLUENCES		—
14.1	Degree of protection provided by enclosure		N/A
	Conduit systems, when assembled in accordance with the manufacturer's instructions, have adequate resistance to external influences according to the classification declared by the manufacturer		N/A
14.1.1	Degree of protection – Ingress of foreign solid objects		N/A
	Sub-clause of part 1 not applicable		—

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
14.1.2	Degree of protection – Ingress of water		N/A
	Sub-clause of part 1 not applicable		—
14.2	Resistance against corrosion		N/A
14.2.1	Resistance to corrosion classification for painted and zinc coated steel and steel composite conduit fixing devices (table 10).....: 1/2/3/4		—
	For non-ferrous metallic and composite conduit fixing devices, the manufacturer provided information about its protection against corrosion		N/A
14.2.2	Tests for resistance to corrosion for painted and zinc coated steel and steel composite conduit fixing devices		N/A
14.2.2.1	Low protection conduit fixing devices inspected for completeness of covering by the protective coating, both inside and outside		N/A
14.2.2.2	Test for medium protection conduit fixing devices: after completion of the test, the samples showed no more than two blue coloured spots on each square centimetre of the surface, and no blue spot had a dimension larger than 1,5 mm		N/A
14.2.2.3	Test for high protection conduit fixing devices: after the test, the sample showed no precipitation of copper which cannot be scrubbed off in running water, if necessary after immersion for 15 s in a 10% solution of hydrochloric acid in water		N/A
15	ELECTROMAGNETIC COMPATIBILITY		—
	Products covered by this standards are, in normal use, passive in respect of electromagnetic influences (emission and immunity)		N/A

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict

8	TABLE: Dimensions			—
Type of fixing device	Conduit diameters declared by the manufacturer (mm)	Fixing device accommodate the declared conduit diameters (Y/N)		Verdict
FC 32-40	32, 40	Y		P
Supplementary information: -				

9.3	TABLE: Screw test (screw fixing using preformed threads)				—
Threaded part identification	Nominal diameter of thread (mm)	Column number of table 3 (I or II)	Applied torque (Nm)	Times (5/10)	Verdict
-	-	-	-	-	N/A
Supplementary information: -					

9.4	TABLE: Screw test (screw fixing using thread-forming screws)				—
Threaded part identification	Nominal diameter of thread (mm)	Column number of table 3 (I or II)	Applied torque (Nm)	Times (5/10)	Verdict
-	-	-	-	-	N/A
Supplementary information: -					

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict

10.3	TABLE: Impact test						—
	Classification (second digit)		3				—
	Test temperature (table 1) (°C)		-25 °C				—
	Mass of hammer (table 5) (kg)		2 kg				—
	Fall height (table 5) (mm)		100 mm				—
	Test performed with.....		steel mandrel / conduit				—
Type	N° of sample	Mandrel or conduit remain inside the fixing device		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		
FC 32-40	1-12	12	0	12	0	12	P
Supplementary information: -							

10.101	TABLE: Lateral load test						—
	Classification (resistance to lateral load)		3				—
	Temperature during the test (°C)		60°C				—
	Test duration		300 s / 60 min				—
Type	N° of sample	Test performed with (conduit / mandrel)	Minimum diameter of size (mm)	Load (kg)	Mounting (wall / ceiling)	Conduit / Mandrel still supported by the fixing device (P/F)	Verdict
FC 32-40	1-3	mandrel	32	6,6	wall	P	
FC 32-40	4-6	mandrel	32	6,6	ceiling	P	
FC 32-40	1-3	mandrel	40	10,2	wall	P	
FC 32-40	4-6	mandrel	40	10,2	ceiling	P	
Supplementary information: -							

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict

10.102	TABLE: Axial load test						—
	Temperature during the test (°C)					-	—
Type	N° of sample	Test performed with (conduit / mandrel)	Minimum diameter of size (mm)	Load (kg)	displacement (mm)	Conduit / Mandrel remain properly assembled – no damage (P/F)	Verdict
-	-	-	-	-	-	-	N/A
Supplementary information: -							

13.1.3.1	TABLE: Glow-wire test (non-metallic and composite conduit fixing devices)					—	
	Material designation				PP 400 GA03	—	
	Test temperature (°C)				650 °C	—	
Size	N° of sample	Art./Type Ref. of the conduit fixing devices	Visible flame or sustained glowing (Y/N)	Time of extinguishment of flames and glowing, if any, after removal of the glow-wire (s)		Verdict	
32-40	1-3	FC 32-40	N	-		P	
Supplementary information: colour: light grey							

List of test equipment used:

(Note: This is an example of the required attachment. Other forms with a different layout but containing similar information are also acceptable.)

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Last Calibration date
8	dimensions	SW.00.682 / steel mandrel	32, 40	-
		SW 00.505 / slide gauge	150 mm	2015-09
10.3	impact test	SW.00.360 / climate chamber	-25°C	2016-09
		SW.00.632 / measuring tape	5 m	2015-03
		SW.00.682 / steel mandrel	-	-
		SW 00.505 / slide gauge	150 mm	2015-09
		SW.00.600 / impact test apparatus	-	2014-10
		SW.00.622 / weights	2 kg	2016-04
		SW.00.743 / stop watch	-	2017-01
10.101	lateral load test	SW.00.360 / climate chamber	60 °C	2016-09
		SW.00.632 / measuring tape	5 m	2015-03
		SW.00.682 / steel mandrel	-	-
		SW 00.505 / slide gauge	150 mm	2015-09
		SW.00.063 / scale	-	2017-02
		SW.00.622 / weights	-	2016-04
		SW.00.743 / stop watch	-	2017-01
		SW.00.554 / water level	-	2015-08
13	fire effects	HG.00.425 / temperature measuring device	650 °C	2015-10
		HG.00.272 / glow wire test apparatus	-	-
		SW.00.743 / stop watch	-	2017-01
		SW 00.505 / slide gauge	150 mm	2015-09
		HG.00.350H, HG.00.380N / measurement of dimensions	-	2015-09
		HG.00.342Ü / force meter	5N	2015-09
		TK.00.076H / tissue paper	-	-
all		TK.00.064Ü / climate measuring device	-	2016-11

figure 1: FC 32-40 (marking)

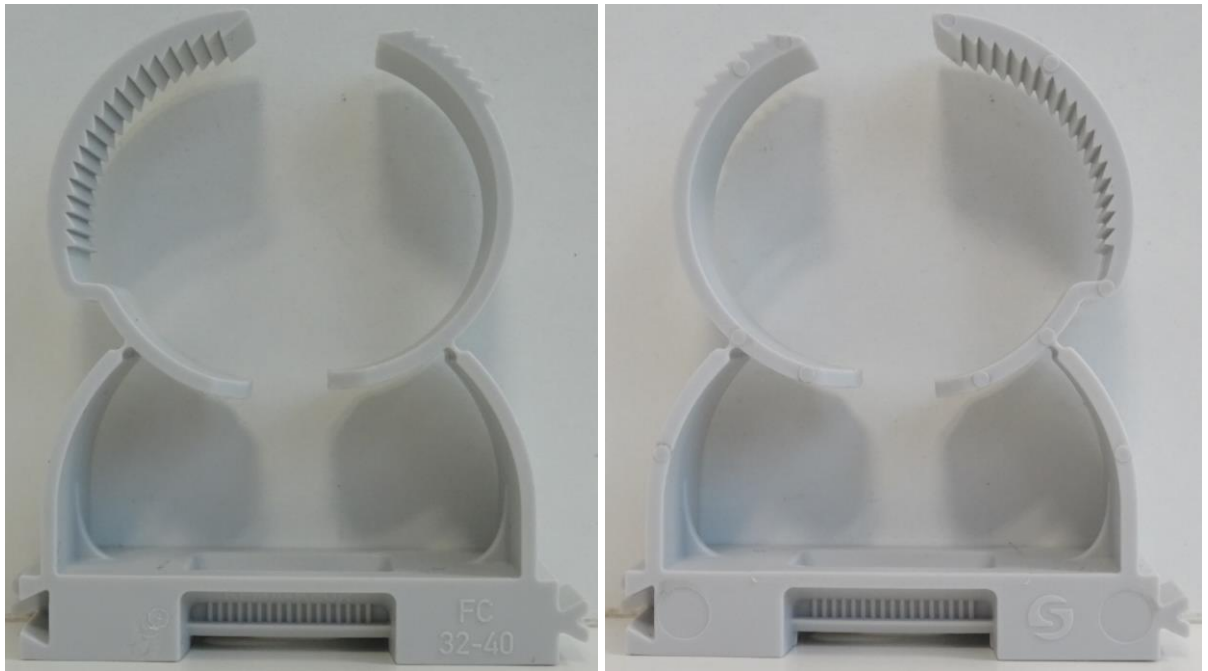


figure 2: FC 32-40 (dimensions)

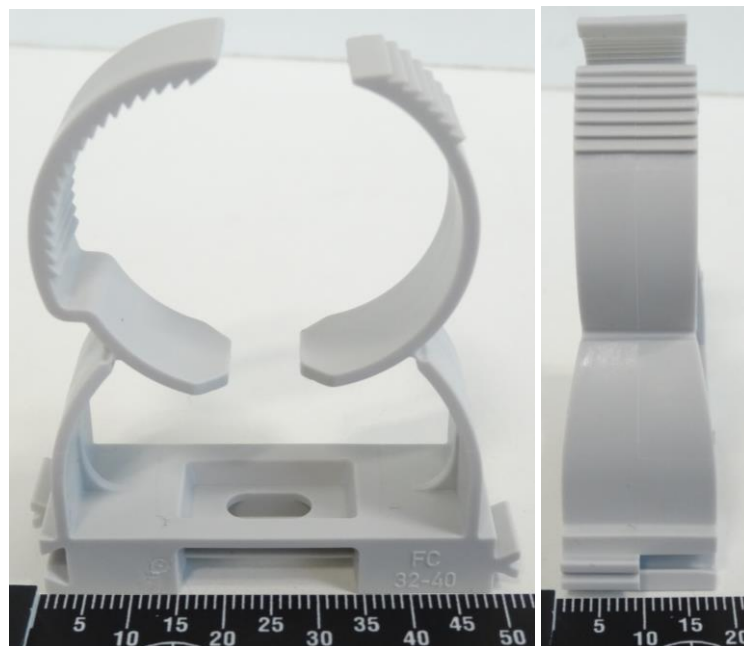


figure 3: FC 32-40 (dimensions)

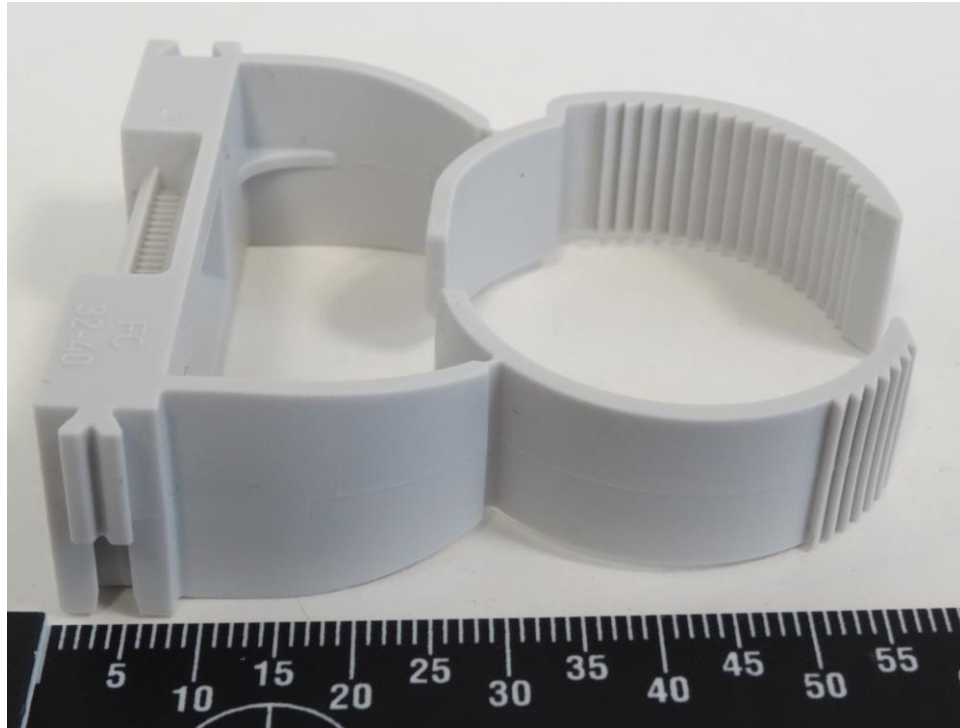
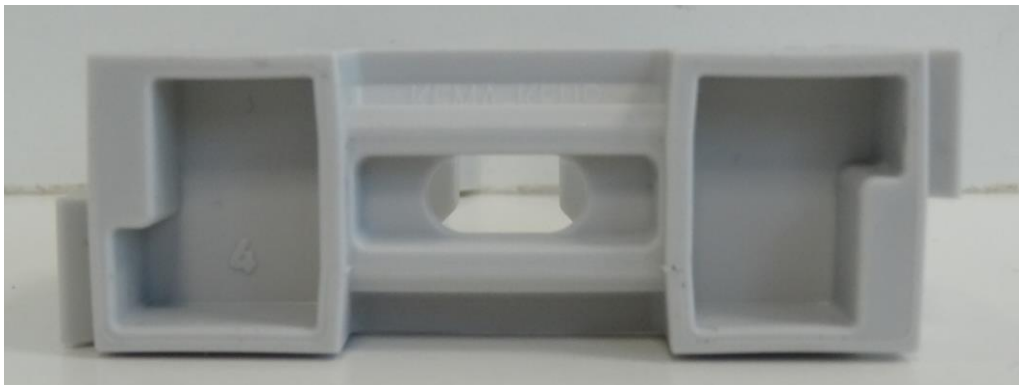


figure 4: FC 32-40 (bottom view)





Test Report issued under the responsibility of:



TEST REPORT

IEC 61386-25

Conduit systems for cable management

Part 25: Particular requirements - Conduit fixing devices

Report Number: TGM-VA EE 37207 SFT3

Date of issue: 2017-07-03

Total number of pages.....: 17

Applicant's name.....: Schnabl Stecktechnik GmbH

Address: Bahnhofplatz 1, Postfach 63
A-3100 St. Pölten

Test specification:

Standard: IEC 61386-25:2011 (First Edition) used in conjunction with
IEC 61386-1:2008 (Second Edition)

Test procedure: CB Scheme

Non-standard test method.....: N/A

Test Report Form No.....: IEC61386_25A

Test Report Form(s) Originator: OVE

Master TRF: Dated 2013-08

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If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description: conduit fixing device


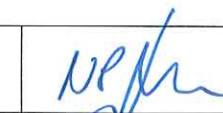
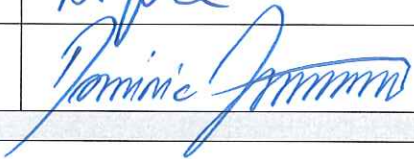
Trade Mark:



Manufacturer: Miraplast GmbH
A-3042 Würmla, Schloßweg 1

Model/Type reference.....: FC 40-50 (Art.Nr.: 13350 or 33350)

Ratings: resistance to lateral load: light
resistance to Impact: medium
constant temperature for installation and use: -25 °C to 60 °C

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Staatliche Versuchsanstalt – TGM
Testing location/ address :		Elektrotechnik und Elektronik A-1200 Wien, Wexstrasse 19-23
		
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address :		
Tested by (name + signature)..... :	Nico Putsche	
Approved by (name + signature)..... :	Dominic Litzka	
Testing procedure: TMP		
Testing location/ address :		
Tested by (name + signature) :		
Approved by (name + signature) :		
Testing procedure: WMT		
Testing location/ address :		
Tested by (name + signature) :		
Witnessed by (name + signature)..... :		
Approved by (name + signature) :		
Testing procedure: SMT		
Testing location/ address :		
Tested by (name + signature) :		
Approved by (name + signature) :		
Supervised by (name + signature) .. :		

List of Attachments (including a total number of pages in each attachment): -

Summary of testing:

Tests performed (name of test and test clause):

clause 7: MARKING AND DOCUMENTATION

clause 8: DIMENSIONS

clause 9: CONSTRUCTION

clause 10: MECHANICAL PROPERTIES

clause 10.3: Impact test

clause 10.101 : Lateral load test

clause 13: FIRE HAZARD

Testing location:

Staatliche Versuchsanstalt – TGM
Elektrotechnik und Elektronik
A-1200 Wien, Wexstrasse 19-23

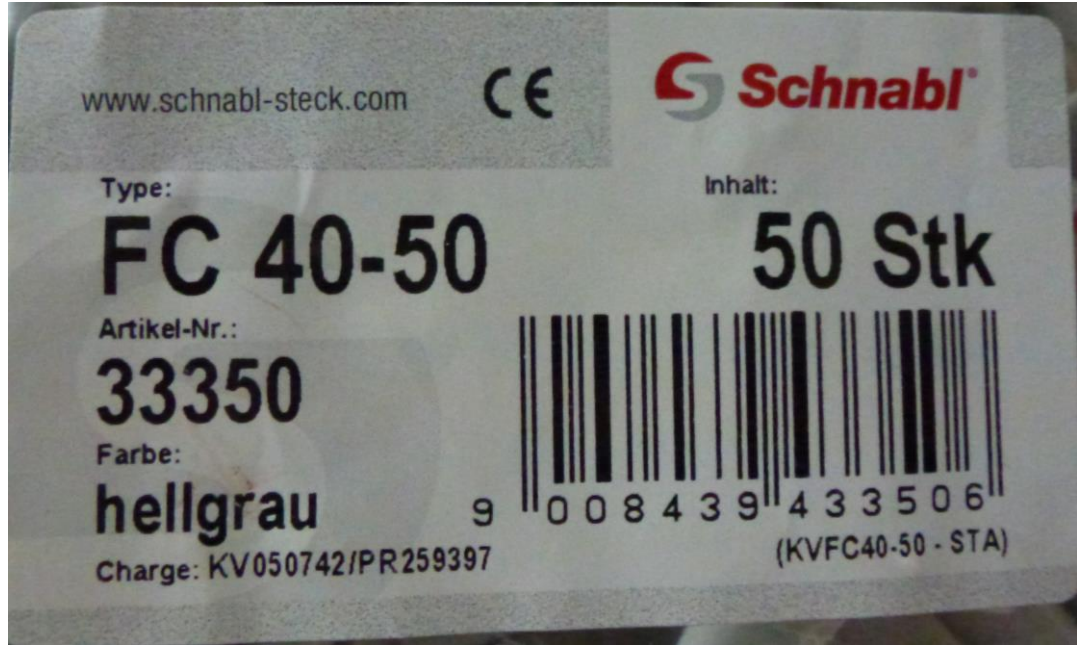
Summary of compliance with National Differences

List of countries addressed: -

The product fulfils the requirements of IEC 61386-25:2011 (First Edition) used in conjunction with IEC 61386-1:2008 (Second Edition) and EN 61386-25:2011 used in conjunction with EN 61386-1:2008.

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.



Test item particulars:	
Conduit fixing device classification coding :	2341-10
Conduit type designation	-
Material – conduit.....	<input type="checkbox"/> Metallic <input type="checkbox"/> Non-metallic <input type="checkbox"/> Composite
Type of conduit.....	<input type="checkbox"/> Plain <input type="checkbox"/> Corrugated
Material – conduit fixing device	<input type="checkbox"/> Metallic <input checked="" type="checkbox"/> Non-metallic <input type="checkbox"/> Composite
Conduit fixing device – quantity	1
Conduit fixing device – type(s).....	FC 40-50 (Art.Nr.: 13350 or 33350)
Conduit fixing device – colour(s).....	light grey
Resistance to impact	<input type="checkbox"/> Light <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Heavy <input type="checkbox"/> Very heavy
Resistance to lateral load.....	<input checked="" type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy
Resistance to axial load	<input type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy <input type="checkbox"/> Very heavy
Lower / Upper temperature range	-25 °C / 60 °C
Resistance against corrosion.....	<input checked="" type="checkbox"/> Without protection <input type="checkbox"/> With protection:
Resistance to flame propagation	<input checked="" type="checkbox"/> Non-flame propagating <input type="checkbox"/> Flame propagating
Possible test case verdicts:	
- test case does not apply to the test object:	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement:	F (Fail)
Testing	
Date of receipt of test item	2017-05-12
Date(s) of performance of tests.....	cw 22-26/2017
General remarks:	
<p>The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.</p>	
<p>Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.</p>	

Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60384-1:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided : –




Yes
 Not applicable

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies).....: Miraplast GmbH
A-3042 Würmla, Schloßweg 1

General product information:

Conduit fixing devices made of insulating material:
material designation: PP 400 GA03
colour: light grey
classification code: 2341-10
type designation: FC 40-50 (Art.Nr.: 13350 or 33350)
range of use: FC 40-50 (Art.Nr.: 13350 or 33350) for conduit size 40 and 50

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict
7	MARKING AND DOCUMENTATION		—
7.1	Conduit fixing devices marked on the product with a trade mark or a name identifying the manufacturer or responsible vendor		P
	Conduit fixing devices marked in addition in such a way that it can be identified in the manufacturer's, or responsible vendor's, literature	FC 40-50 (Art.Nr.: 13350 or 33350)	P
7.1.1	Manufacturer indicates the compatibility within the conduit system in accordance with IEC 61386 series :		P
7.1.2	Manufacturer provides in his literature the classification and all necessary information for transport, storage, installation and use		P
7.2	Conduit fixing device is marked in accordance with 7.1, on		P
	- the product	 FC 40-50	P
	- a label attached to the product, or on the box or carton containing the fittings (if the marking on the product is impractical)	 FC 40-50 (Art.Nr.: 13350 or 33350)	P
7.3	Flame propagating material is orange in colour		N/A
	Sub-clause of part 1 not applicable		—
7.4	Earthing facilities are indicated by the symbol for protective earth in accordance with IEC 60417, symbol 60417-IEC-5019-a		N/A
	Sub-clause of part 1 not applicable		—
7.5	Compliance with 7.1 to 7.2 checked by inspection		P
7.6	Marking is durable and clearly legible		P
	Compliance checked by inspection and by rubbing the marking by hand for 15 s with a piece of cloth soaked with water, and again for 15 s with a piece of cloth soaked with petroleum spirit		P
8	DIMENSIONS		—
	Conduit fixing devices are capable of accommodating the size or range of conduit diameters as declared by the manufacturer	See appended table 8	P

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Clause	Requirement + Test	Result - Remark	Verdict
9	CONSTRUCTION		—
9.1	There are no sharp edges, burrs or surface projections which damage the conduit system		P
	Or inflict injury on the installer or user		P
9.2	Fixing means designed to withstand the mechanical stresses occurring during installation and use		P
	Screws, if any, used for assembly of the fixing device, do not cause damage to the conduit system components when correctly assembled		N/A
	Screw fixing using preformed threads checked by clause 9.3		N/A
	Screw fixing using thread-forming screws checked by clause 9.4 and inspection		N/A
	Reusable fixing other than screws checked by assembly and removal ten times		P
	Non-reusable fixing checked by assembly		N/A
9.3	Test for screw fixing using preformed threads	See appended table 9.3	N/A
	After the test: no damage sustained by the screw or nut, such as breakage of the screw or damage to the head or thread		N/A
9.4	Test for screw fixing using thread-forming screws	See appended table 9.4	N/A
	After the test: no damage, such as breakage of the screw or damage to the head or thread		N/A
10	MECHANICAL PROPERTIES		—
10.1	Mechanical strength		P
10.1.1	Conduit fixing devices have adequate mechanical strength		P
10.1.2	Compliance of 10.1.1 checked by the tests specified in 10.3, 10.101 and 10.102		P
10.2	Compression test		N/A
	Sub-clause of part 1 not applicable		—
10.3	Impact test		P
	12 assemblies of the conduit fixing device and a steel mandrel or conduit are 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
10.4	Bending test		N/A
	Sub-clause of part 1 not applicable		—

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Clause	Requirement + Test	Result - Remark	Verdict
10.5	Flexing test		N/A
	Sub-clause of part 1 not applicable		—
10.6	Collapse test		N/A
	Sub-clause of part 1 not applicable		—
10.7	Tensile test		N/A
	Sub-clause of part 1 not applicable		—
10.8	Suspended load test		N/A
	Sub-clause of part 1 not applicable		—
10.101	Lateral load test		P
10.101.1	Two conduit fixing devices mounted as shown in Figure 101 or Figure 102		P
	Conduit fixing devices can be used with any type of conduit – steel mandrel		P
	Conduit fixing devices can only be used with a specific type of conduit as declared by the manufacturer		N/A
10.101.2	Metallic conduit fixing devices tested at ambient temperature, load applied without shock 300 s +10/0 s	See appended table 10.101	N/A
10.101.3	Non-metallic conduit fixing devices tested at declared maximum temperature, load applied without shock 60 min +5/0 min	See appended table 10.101	P
10.101.4	Conduit is still supported by fixing device		P
10.102	Axial load test		N/A
10.102.1	Conduit fixing devices can be used with any type of conduit – steel mandrel		N/A
	The mandrel and the conduit fixing device is mounted in accordance with the manufacturer's instructions and figure 103		N/A
	Conduit fixing devices can only be used with a specific type of conduit as declared by the manufacturer		N/A
	A sample conduit and the conduit fixing device is mounted in accordance with the manufacturer's instructions and figure 103		N/A
	Metallic conduit fixing devices tested at ambient temperature, load applied without shock 300 s +10/0 s	See appended table 10.102	N/A
	Non-metallic conduit fixing devices tested at declared maximum temperature, load applied without shock 300 s +10/0 s	See appended table 10.102	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
10.102.2	After the test the conduit remain properly assembled to the conduit fixing device, have no displacement more than 2 mm through the fixing device and no visible damage		N/A
11	ELECTRICAL PROPERTIES		—
	Clause of part 1 not applicable		—
12	THERMAL PROPERTIES		—
	Clause of part 1 not applicable		—
13	FIRE HAZARD		—
13.1	Reaction to fire		P
13.1.1	Initiation of fire (not applicable)		—
13.1.2	Contribution to fire (under consideration)		—
13.1.3	Spread of fire		P
	Non-flame propagating conduit systems have adequate resistance to flame propagation		P
13.1.3.1	Non-metallic and composite conduit fixing devices subjected to glow-wire test of IEC 60695-2-1/1 (IEC 60695-2-11) at 650 °C		P
	No visible flame or sustained glowing,	See appended table 13.1.3.1	P
	Flames and glowing extinguished within 30 s of the removal of the glow-wire (s)	See appended table 13.1.3.1	N/A
13.1.3.2	Non-metallic and composite conduits subjected to 1 kW flame of IEC 60695-2-4/1 (IEC 60695-11-2), according to the arrangement of figure 7, applied for the period given in table 11		N/A
	Sub-clause of part 1 not applicable		—
13.1.4	Additional reaction to fire characteristics (under consideration)		—
13.2	Resistance to fire (not applicable)		—
14	EXTERNAL INFLUENCES		—
14.1	Degree of protection provided by enclosure		N/A
	Conduit systems, when assembled in accordance with the manufacturer's instructions, have adequate resistance to external influences according to the classification declared by the manufacturer		N/A
14.1.1	Degree of protection – Ingress of foreign solid objects		N/A
	Sub-clause of part 1 not applicable		—

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Clause	Requirement + Test	Result - Remark	Verdict
14.1.2	Degree of protection – Ingress of water		N/A
	Sub-clause of part 1 not applicable		—
14.2	Resistance against corrosion		N/A
14.2.1	Resistance to corrosion classification for painted and zinc coated steel and steel composite conduit fixing devices (table 10).....: 1/2/3/4		—
	For non-ferrous metallic and composite conduit fixing devices, the manufacturer provided information about its protection against corrosion		N/A
14.2.2	Tests for resistance to corrosion for painted and zinc coated steel and steel composite conduit fixing devices		N/A
14.2.2.1	Low protection conduit fixing devices inspected for completeness of covering by the protective coating, both inside and outside		N/A
14.2.2.2	Test for medium protection conduit fixing devices: after completion of the test, the samples showed no more than two blue coloured spots on each square centimetre of the surface, and no blue spot had a dimension larger than 1,5 mm		N/A
14.2.2.3	Test for high protection conduit fixing devices: after the test, the sample showed no precipitation of copper which cannot be scrubbed off in running water, if necessary after immersion for 15 s in a 10% solution of hydrochloric acid in water		N/A
15	ELECTROMAGNETIC COMPATIBILITY		—
	Products covered by this standards are, in normal use, passive in respect of electromagnetic influences (emission and immunity)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

8	TABLE: Dimensions			—
Type of fixing device	Conduit diameters declared by the manufacturer (mm)	Fixing device accommodate the declared conduit diameters (Y/N)		Verdict
FC 40-40	40, 50	Y		P
Supplementary information: -				

9.3	TABLE: Screw test (screw fixing using preformed threads)				—
Threaded part identification	Nominal diameter of thread (mm)	Column number of table 3 (I or II)	Applied torque (Nm)	Times (5/10)	Verdict
-	-	-	-	-	N/A
Supplementary information: -					

9.4	TABLE: Screw test (screw fixing using thread-forming screws)				—
Threaded part identification	Nominal diameter of thread (mm)	Column number of table 3 (I or II)	Applied torque (Nm)	Times (5/10)	Verdict
-	-	-	-	-	N/A
Supplementary information: -					

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Clause	Requirement + Test	Result - Remark	Verdict

10.3	TABLE: Impact test						—
	Classification (second digit)		3				—
	Test temperature (table 1) (°C)		-25 °C				—
	Mass of hammer (table 5) (kg)		2 kg				—
	Fall height (table 5) (mm)		100 mm				—
	Test performed with.....		steel mandrel / conduit				—
Type	N° of sample	Mandrel or conduit remain inside the fixing device		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		
FC 40-50	1-12	12	0	12	0	12	P
Supplementary information: -							

10.101	TABLE: Lateral load test						—
	Classification (resistance to lateral load)		2				—
	Temperature during the test (°C)		60°C				—
	Test duration		300 s / 60 min				—
Type	N° of sample	Test performed with (conduit / mandrel)	Minimum diameter of size (mm)	Load (kg)	Mounting (wall / ceiling)	Conduit / Mandrel still supported by the fixing device (P/F)	Verdict
FC 40-50	1-3	mandrel	40	5,1	wall	P	
FC 40-50	4-6	mandrel	40	5,1	ceiling	P	
FC 40-50	1-3	mandrel	50	8,0	wall	P	
FC 40-50	4-6	mandrel	50	8,0	ceiling	P	
Supplementary information: -							

IEC 61386-25			
Clause	Requirement + Test	Result - Remark	Verdict

10.102	TABLE: Axial load test						—
	Temperature during the test (°C)					-	—
Type	N° of sample	Test performed with (conduit / mandrel)	Minimum diameter of size (mm)	Load (kg)	displacement (mm)	Conduit / Mandrel remain properly assembled – no damage (P/F)	Verdict
-	-	-	-	-	-	-	N/A
Supplementary information: -							

13.1.3.1	TABLE: Glow-wire test (non-metallic and composite conduit fixing devices)					—	
	Material designation				PP 400 GA03	—	
	Test temperature (°C)				650 °C	—	
Size	N° of sample	Art./Type Ref. of the conduit fixing devices	Visible flame or sustained glowing (Y/N)	Time of extinguishment of flames and glowing, if any, after removal of the glow-wire (s)		Verdict	
40-50	1-3	FC 40-50	N	-		P	
Supplementary information: colour: light grey							

List of test equipment used:

(Note: This is an example of the required attachment. Other forms with a different layout but containing similar information are also acceptable.)

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Last Calibration date
8	dimensions	SW.00.682 / steel mandrel	40, 50	-
		SW 00.505 / slide gauge	150 mm	2015-09
10.3	impact test	SW.00.360 / climate chamber	-25°C	2016-09
		SW.00.632 / measuring tape	5 m	2015-03
		SW.00.682 / steel mandrel	-	-
		SW 00.505 / slide gauge	150 mm	2015-09
		SW.00.600 / impact test apparatus	-	2014-10
		SW.00.622 / weights	2 kg	2016-04
		SW.00.743 / stop watch	-	2017-01
10.101	lateral load test	SW.00.360 / climate chamber	60 °C	2016-09
		SW.00.632 / measuring tape	5 m	2015-03
		SW.00.682 / steel mandrel	-	-
		SW 00.505 / slide gauge	150 mm	2015-09
		SW.00.063 / scale	-	2017-02
		SW.00.622 / weights	-	2016-04
		SW.00.743 / stop watch	-	2017-01
		SW.00.554 / water level	-	2015-08
13	fire effects	HG.00.425 / temperature measuring device	650 °C	2015-10
		HG.00.272 / glow wire test apparatus	-	-
		SW.00.743 / stop watch	-	2017-01
		SW 00.505 / slide gauge	150 mm	2015-09
		HG.00.350H, HG.00.380N / measurement of dimensions	-	2015-09
		HG.00.342Ü / force meter	5N	2015-09
		TK.00.076H / tissue paper	-	-
all		TK.00.064Ü / climate measuring device	-	2016-11

figure 1: FC 40-50 (marking)



figure 2: FC 40-50 (dimensions)

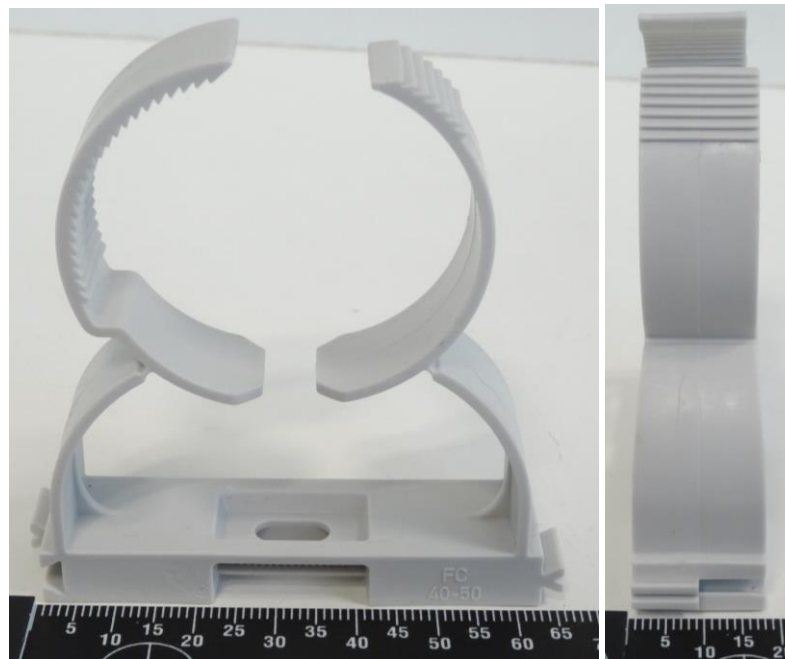


figure 3: FC 40-50 (dimensions)

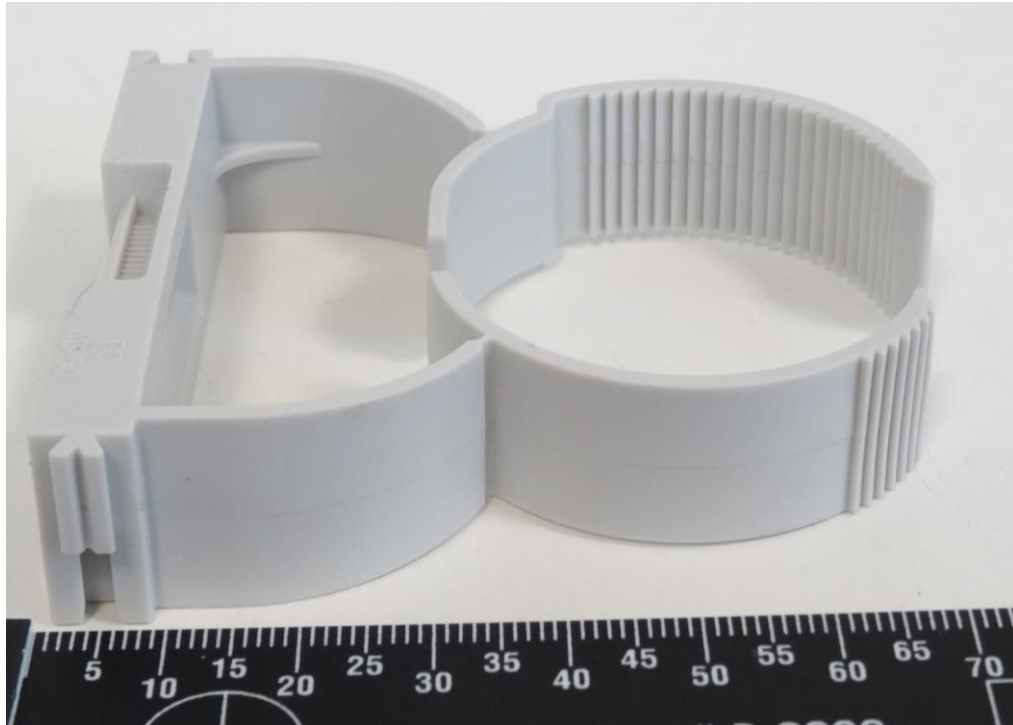


figure 4: FC 40-50 (bottom view)

