

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Conduit, Fitting, Cable Pipe, Box, Etc.

with type designation(s)
PA 6, PA 6 S and PA 12

Issued to

FLEXA GmbH & Co.
Hanau Hessen, Germany

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2020-06-29**.

Issued at **Hamburg** on **2016-07-14**

DNV GL local station: **Augsburg**

Approval Engineer: **Carsten Hunsalz**

for **DNV GL**

Duy Nam Le
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

Protection and support system for cables and wires.
Corrugated tubing of various colours made from Polyamid 6 and PA 12.

Classification of Conduits according to IEC 61386-23:2002 / EN 61386-23:2004 + A11:2010

Item	Classification according to:	PA 6	PA 6 S	PA 12
	Sizes Outer diameter (mm)	10,0 - 54,5	10,0 - 54,5	10,0 - 54,5
6.1.1	Resistance to compression	Light / Medium	Light / Medium	Very Light / Light
6.1.2	Resistance to impact	Medium / Heavy	Medium / Heavy	Very Light / Light
6.1.3	Resistance to bending	Flexible	Flexible	Flexible
6.1.4	Tensile strength	Very Light / Light / Medium	Very Light / Light / Medium	Very Light / Light
6.1.5	Suspended load capacity	Light / Medium	Light / Medium	Very Light / Light
6.2.1	Lower temperature range (Transport, installation and application not lower than)	-5 °C	-25 °C	-45 °C
6.2.2	Upper temperature range (Transport, installation and application no more than)	+120 °C	+120 °C	+120 °C
6.3	According to electrical characteristics	Not tested	Not tested	Not tested
6.4	According to resistance to external influences:	IP67	IP67	IP67
6.5	According to resistance to flame propagation	Non-flame propagation	Non-flame propagation	Non-flame propagation

Application/Limitation

For use as wire support and protection inside cabinets. The conduit must support the cables not vice versa. When used outside cabinets, the conduit must give added protection to cables – not wires. Conduits with wires are not substitutes for cables.

When exposed to sunlight, Ultra-Violet resistant type must be specified.

Not for use through areas where water or gastightness is required. Nor through areas of different fire or hazardous zones.

Type Approval documentation

Tests carried out

Type tests in accordance with DIN EN IEC 61386-23. Resistance to flame propagation.

Marking of product



Job Id: **262.1-003126-4**
Certificate No: **TAE0000188**

FLEXA - Type - Size - Ref. no.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at least every second year.

END OF CERTIFICATE