

# Specialty Convuluted Tubing



## GAFMIL

The convoluted tubing GAFMIL is specifically designed to provide the protection benefits of a non-slit tube with the ease of assembly of a slit tube.

GAFMIL is a one piece slit closeable plastic convoluted tube made of two C shaped shells connected by a hinge, locking onto each other.

The first convolute portion takes place on the wire harness, the second portion pivots thanks to the hinge and covers the first one.

The overlap between the two convoluted portions avoids the risk of wire exposure, even in low radius curve zones.

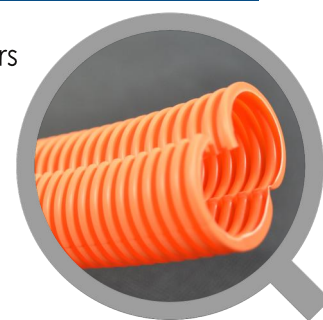
### Advantages:

- Reduction of assembly cycle time
- Weight reduction
- High mechanical protection of wires
- Tapeless solution
- Filling ratio up to 100%
- Easy to use
- Environmentally friendly solution

## Application & Material

GAFMIL provides full protection of the wire against dirt, abrasion, short bending radius and risk of wire exposure. It is also compatible with Delfingen clips, fasteners and branching accessories.

GAFMIL is available in various plastic grades of polypropylene (PP). A polypropylene material can also be proposed in a UL94 V-0 grade upon request, following validation steps.

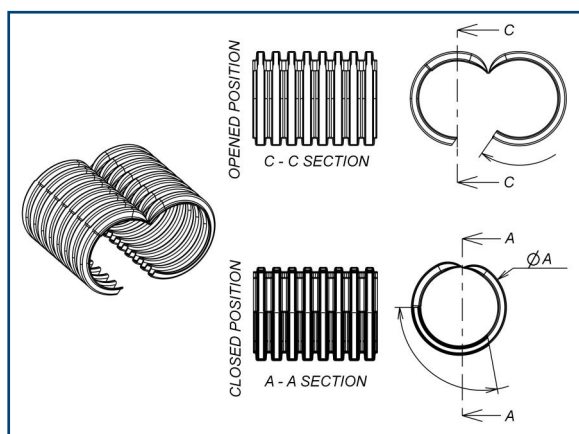


## Characteristics

**Colors:** standard colors are black and orange. Many other colors upon request.

Physical properties	Specification	Unit	Standard PP	Flame retardant PP	High heat flame retardant PP	High heat PP
<b>Thermal properties</b>						
Continuous temp. of use min/max (3000h)	-	°C (°F)	-40/100 (-40/212)	-40/105 (-40/221)	-40/125 (-40/257)	-40/125 (-40/257)
Peak temperature (240h)	-	°C (°F)	125 (257)	125 (257)	150 (302)	150 (302)
<b>Mechanical properties</b>						
Tensile strength at break	ISO 527 ASTM D638	MPa	>27.5	>27.5	>27.5	>27.5
Elongation at break	ISO 527	%	>600	>600	>600	>600
<b>Other properties</b>						
Density	ASTM D792	g/cm <sup>3</sup>	0.90	0.92-0.94	0.92	0.91
Flammability	FMVSS 302	mm/min	<100	self-exting.	self-exting.	<100
Oxygen Index	JIS K 7201	%	-	>23.5	-	-
Chemical resistance	Resists the majority of chemicals and automotive fluids (oils, coolant, battery liquid, brake fluid, fuels, windshield washer...)					

## Dimensions



Designation	Max. wires bundle Ø (mm)	External Ø (A) (mm)
GAFMIL 13	13.5	18.2
GAFMIL 16	16.5	21
GAFMIL 19	18.5	24.4
GAFMIL 23	22	28.5
GAFMIL 26	25	31.9

## Approvals

- Direct: Ford, General Motors, Jaguar/Land Rover, Peugeot-Citroën, Renault-Nissan.
- Via Tier-1: Fiat Chrysler Automobiles, John Deere.

## Packaging

GAFMIL is delivered in cut lengths, bulks (closed position), coils, cardboard boxes or returnable boxes.

Data and photos for information only. Delfingen makes no warranties as to the accuracy or completeness of this information. Delfingen reserves the right to make changes in materials or processing without notification.

Corporate Headquarters: DELFINGEN Industry S.A., Rue Emile Streit, 25340 Anteuil, France

Tel: +33 (0)3 81 90 73 00 • [delfingen@delfingen.com](mailto:delfingen@delfingen.com)

[www.delfingen.com](http://www.delfingen.com)