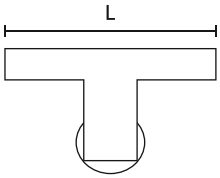
Bundling Clips for Parallel Routing of Pipes

Originally designed for the automotive industry, these clips offer simple and easy methods of securing cables, hoses or pipes. The cellular rubber seal reliably protects against dust and dirt.

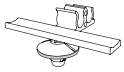
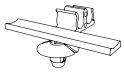
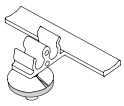
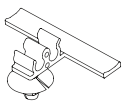
Features and benefits

- Especially for banding of cables and cable harnesses
- Fastened onto bundling bar with cable ties or adhesive tape
- Suitable for door and tailgate harnesses
- Manually or automatic applied with Autotool 2000, AT2000CPK or ATS3080
- Cables can be added to pipe clip after installation of bundling clip
- For maintenance needs cables are removable from pipe clip

Bundling clip FC20D6A for parallel routing of pipes.



Reference for dimensions only

PART DESCRIPTION	Drawing	Hole Ø (FH)	Panel Thickness	Length (L)
FC20D6A1-MD-PA66-NA		6.3 - 7.1, 6.35 (hexagonal)	0.7 - 1.8	50.0
FC20D6A-PA66-BK		6.3 - 7.1, 6.35 (hexagonal)	0.7 - 2.0	50.0
FC20D6B1-MD-PA66-NA		6.3 - 7.1, 6.35	0.7 - 1.8	50.0
FC20D6B-PA66-BK		6.3 - 7.1	0.7 - 2.0	50.0

All dimensions in mm. Subject to technical changes.

Date of issue: 07/2019

Material Specification Overview

MATERIAL	Material Shortcut	Operating Temperature	Colour*	Flammability
Aluminium alloy	AL	-40 °C to +180 °C	Natural (NA)	
Chloroprene Rubber	CR	-20 °C to +80 °C	Black (BK)	
Ethylene Tetrafluoroethylene (Tefzel®)	E/TFE	-80 °C to +170 °C	Blue (BU)	UL 94 V0
Polyacetal	POM	-40 °C to +90 °C, (+110 °C, 500 h)	Natural (NA)	UL 94 HB
Polyamide 11	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB
Polyamide 11, UV-resistant	PA11W	-40 °C to +105 °C	Black (BK)	UL 94 HB
Polyamide 12	PA12	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB
Polyamide 4.6	PA46	-40 °C to +130 °C, (+150 °C, 5000 h; +195 °C, 500 h)	Natural (NA), Grey (GY)	UL 94 V2
Polyamide 6	PA6	-40 °C to +80 °C	Black (BK)	UL 94 V2
Polyamide 6, glass-fibre reinforced	PA6GF30	-40 °C to +100 °C	Black (BK)	UL 94 HB
Polyamide 6, high impact modified	PA6HIR	-40 °C to +80 °C	Black (BK)	UL 94 HB
Polyamide 6, high impact modified, heat stabilised	PA6HIRHS	-80 °C to +110 °C	Black (BK)	UL 94 HB
Polyamide 6.6	PA66	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK), Natural (NA)	UL 94 V2
Polyamide 6.6, glass-fibre reinforced	PA66GF13	-40 °C to +105 °C	Black (BK)	UL 94 HB
Polyamide 6.6, glass-fibre reinforced	PA66GF15	-40 °C to +105 °C	Black (BK)	UL 94 HB
Polyamide 6.6, heat and UV stabilised	PA66HSUV	-40 °C to +105 °C	Black (BK), Natural (NA)	UL 94 V2
Polyamide 6.6, heat and UV stabilised	PA66HSW	-40 °C to +105 °C	Black (BK)	UL 94 V2
Polyamide 6.6, heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL 94 V2
Polyamide 6.6, high impact modified	PA66HIR	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB
Polyamide 6.6, high impact modified, heat and UV stabilised	PA66HIRHSUV	-40 °C to +110 °C	Black (BK)	UL 94 HB
Polyamide 6.6, high impact modified, heat and UV stabilised (only for cable ties for Autotool System 3080)	PA66HIRHSUV	-40 °C to +95 °C, (+105 °C, 5000 h; +145 °C, 500 h)	Black (BK), Natural (NA)	UL 94 HB
Polyamide 6.6, high impact modified, heat and UV stabilised	PA66HIRHSW	-40 °C to +110 °C	Black (BK)	UL 94 HB
Polyamide 6.6, high impact modified, heat stabilised	PA66HIRHS	-40 °C to +105 °C	Black (BK)	UL 94 HB
Polyamide 6.6, high impact modified, scan black	PA66HIR(S)	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB

Tefzel® is a registered trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel®-Tie. In additon to Tefzel® from DuPont HellermannTyton also uses equivalent E/TFE raw material from other suppliers.

*Further colours available on request.

N = **Minimum Loop Tensile Strength for Cable Ties (Newton)**

Date of issue: 07/2019

MATERIAL	Material Shortcut	Operating Temperature	Colour*	Flammability
Polyamide 6.6, UV resistant	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 V2
Polyamide 6.6, UV-stabilised	PA66UV	-40 °C to +85 °C	Black (BK), Natural (NA)	UL 94 V2
Polyamide 6.6, with metal particles	PA66MP	-40 °C to +85 °C, (+105 °C, 500 h)	Blue (BU)	UL 94 HB
Polyamide 6.6, with metal particles	PA66MP+	-40 °C to +85 °C	Blue (BU)	not flame retardant
Polyamide 6.6 V0	PA66V0	-40 °C to +85 °C	White (WH)	UL 94 V0
Polyaryletherketone	PAEK	-55 °C to +200 °C	Beige (BGE)	UL 94 V0
Polyester	SP	-50 °C to +150 °C	Black (BK)	
Polyetheretherketone	PEEK	-55 °C to +240 °C	Beige (BGE)	UL 94 V0
Polyethylene	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL 94 HB
Polyolefin	PO	-40 °C to +90 °C	Black (BK)	UL 94 V0
Polyphenylene Sulfide	PPS	-40 °C to +150 °C	Black (BK), Grey (GY)	UL 94 V0
Polypropylene, Ethylene Propylene Diene Terpolymer rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL 94 HB
Polypropylene 20% Talkum	PPT20	-40 °C to +65 °C	Black (BK)	UL 94 HB
Polypropylene with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL 94 HB
Polypropylene with metal particles	PPMP+	-40 °C to +85 °C	Blue (BU)	not flame retardant
Polyvinylidene Fluoride	PVDFX	-50 °C to +150 °C	Natural (NA)	UL 94 V0
Polyvinylchloride	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL 94 V0
Stainless Steel	SS304, SS316	-80 °C to +538 °C	Natural (NA)	non-burning
Thermoplastic Polyurethane	TPU	-40 °C to +85 °C	Black (BK)	UL 94 HB

Tefzel® is a registered trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel®-Tie. In additon to Tefzel® from DuPont HellermannTyton also uses equivalent E/TFE raw material from other suppliers.

*Further colours available on request.

N = **Minimum Loop Tensile Strength for Cable Ties (Newton)**

Tip: Material shortcut is part of our Part Description name

Product series name (indicating tie type, clip and harness routing variant)

Material code

Colour code (details on page 326)

T50ROSEC5A-PA66HS/PA66HIRHS-BK

Date of issue: 07/2019