



Aluminium P-Clips

Alu-P-Clip with / without chloroprene Insert

Manufactured from a high quality aluminium, these P-Clips provide flexibility whilst providing a permanent fixing in the most arduous of environments. The addition of a Chloroprene insert provides the cable or pipe bundle with a high degree of protection against vibration, reducing noise and also providing electrical isolation.

Features and Benefits

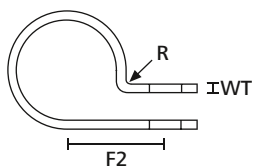
- Simple, secure pipe or cable fixing (e. g. caravan construction)
- Combine with chloroprene insert for vibration resistance (e. g. retain capacitors on PCB)
- Ideal for use in high temperatures
- Suitable for applications needing strength of metal components



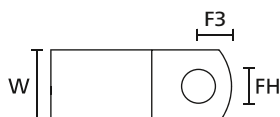
P-Clips manufactured in polyamide, aluminium or aluminium with a chloroprene insert.



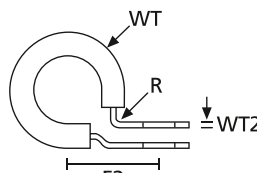
**Material specification
please see page 24.**



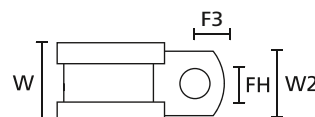
Alu P-Clip (side view)



Alu P-Clip (plan view)



Alu P-Clip with
chloroprene insert (side view)



Alu P-Clip with
chloroprene insert (plan view)

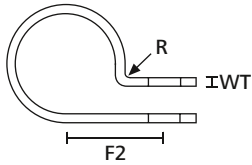
TYPE	Width (W)	Width (W2)	Wall (WT)	Wall (WT2)	Hole Ø (FH)	Fixing Hole Centres (F2)	Fixing Hole Centres (F3)	Bundle Ø max.	Radius (R)	Material	Colour	Article-No.
ALU4	12.7	-	0.80	-	5.2	11.6	5.5	6.4	1.6	AL	Natural (NA)	211-10040
ALU5	12.7	-	0.80	-	5.2	12.6	5.5	8.0	1.6	AL	Natural (NA)	211-10050
ALU6	12.7	-	0.80	-	5.2	13.4	5.5	9.5	1.6	AL	Natural (NA)	211-10060
ALU7	12.7	-	0.80	-	5.2	14.2	5.5	11.1	1.6	AL	Natural (NA)	211-10070
ALU8	12.7	-	0.80	-	5.2	15.0	5.5	12.7	1.6	AL	Natural (NA)	211-10080
ALU10	12.7	-	0.80	-	5.2	16.6	5.5	15.9	1.6	AL	Natural (NA)	211-10100
ALU11	12.7	-	1.30	-	5.2	19.1	5.5	17.5	2.8	AL	Natural (NA)	211-10110
ALU12	12.7	-	1.30	-	5.2	19.9	5.5	19.1	2.8	AL	Natural (NA)	211-10120
ALU13	12.7	-	1.30	-	5.2	20.7	5.5	20.6	2.8	AL	Natural (NA)	211-10130
ALU4C	16.3	12.7	3.70	0.8	5.2	11.6	5.5	3.2	1.6	AL, CR	Black (BK)	211-15040
ALU5C	16.3	12.7	3.70	0.8	5.2	12.6	5.5	4.8	1.6	AL, CR	Black (BK)	211-15050
ALU6C	16.3	12.7	3.70	0.8	5.2	13.4	5.5	6.4	1.6	AL, CR	Black (BK)	211-15060
ALU7C	16.3	12.7	3.70	0.8	5.2	14.2	5.5	8.0	1.6	AL, CR	Black (BK)	211-15070
ALU8C	16.3	12.7	3.70	0.8	5.2	15.0	5.5	9.5	1.6	AL, CR	Black (BK)	211-15080
ALU9C	16.3	12.7	3.70	0.8	5.2	15.8	5.5	11.1	1.6	AL, CR	Black (BK)	211-15090
ALU10C	16.3	12.7	3.70	0.8	5.2	16.6	5.5	12.7	1.6	AL, CR	Black (BK)	211-15100

All dimensions in mm. Subject to technical changes.

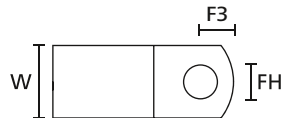


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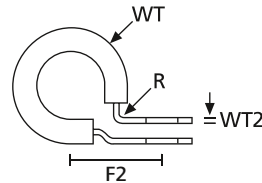
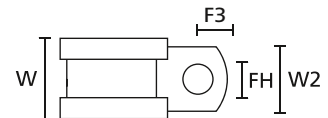
Alu-P-Clip with / without chloroprene Insert



Alu P-Clip (side view)



Alu P-Clip (plan view)

Alu P-Clip with
chloroprene insert (side view)Alu P-Clip with
chloroprene insert (plan view)

TYPE	Width (W)	Width (W2)	Wall (WT)	Wall (WT2)	Hole Ø (FH)	Fixing Hole Centres (F2)	Fixing Hole Centres (F3)	Bundle Ø max.	Radius (R)	Material	Colour	Article-No.
ALU11C	16.3	12.7	4.50	1.3	5.2	19.1	5.5	14.3	2.8	AL, CR	Black (BK)	211-15110
ALU12C	16.3	12.7	4.50	1.3	5.2	19.9	5.5	15.9	2.8	AL, CR	Black (BK)	211-15120
ALU13C	16.3	12.7	4.50	1.3	5.2	20.7	5.5	17.5	2.8	AL, CR	Black (BK)	211-15130
ALU14C	16.3	12.7	4.50	1.3	5.2	21.5	5.5	19.1	2.8	AL, CR	Black (BK)	211-15140
ALU15C	16.3	12.7	4.50	1.3	5.2	22.3	5.5	20.6	2.8	AL, CR	Black (BK)	211-15150
ALU16C	16.3	12.7	4.50	1.3	5.2	23.1	5.5	22.2	2.8	AL, CR	Black (BK)	211-15160
ALU17C	16.3	12.7	4.50	1.3	5.2	23.9	5.5	23.8	2.8	AL, CR	Black (BK)	211-15170
ALU18C	16.3	12.7	4.50	1.3	5.2	24.6	5.5	25.4	2.8	AL, CR	Black (BK)	211-15180
ALU19C	16.3	12.7	4.50	1.3	5.2	25.5	5.5	27.0	2.8	AL, CR	Black (BK)	211-15190
ALU20C	16.3	12.7	4.50	1.6	5.2	27.0	5.5	28.6	3.2	AL, CR	Black (BK)	211-15200
ALU22C	16.3	12.7	4.50	1.6	5.2	28.6	5.5	31.8	3.2	AL, CR	Black (BK)	211-15220
ALU23C	16.3	12.7	4.50	1.6	5.2	29.4	5.5	33.3	3.2	AL, CR	Black (BK)	211-15230
ALU24C	16.3	12.7	4.50	1.6	5.2	30.2	5.5	34.9	3.2	AL, CR	Black (BK)	211-15240
ALU25C	16.3	12.7	4.50	1.6	5.2	30.8	5.5	36.5	3.2	AL, CR	Black (BK)	211-15250
ALU26C	16.3	12.7	4.50	1.6	5.2	31.7	5.5	38.1	3.2	AL, CR	Black (BK)	211-15260
ALU28C	16.3	12.7	4.50	1.6	5.2	33.3	5.5	41.3	3.2	AL, CR	Black (BK)	211-15280
ALU29C	16.3	12.7	4.50	1.6	5.2	34.1	5.5	42.9	3.2	AL, CR	Black (BK)	211-15290
ALU30C	16.3	12.7	4.50	1.6	5.2	34.9	5.5	44.5	3.2	AL, CR	Black (BK)	211-15300
ALU34C	16.3	12.7	4.50	1.6	5.2	38.1	5.5	50.8	3.2	AL, CR	Black (BK)	211-15340

All dimensions in mm. Subject to technical changes.

Material Specification Overview

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
Aluminium-alloy	AL	-40 °C to +180 °C	Natural (NA)		- Corrosion resistant - Antimagnetic	RoHS
Chloroprene	CR	-20 °C to +80 °C	Black (BK)		- Weather-resistant - High yield strength	RoHS
Ethylene Tetrafluoroethylene	E/TFE	-80 °C to +170 °C	Blue (BU)	UL94 V0	- Resistance to radioactivity - UV-resistant, not moisture sensitive - Good chemical resistance to: acids, bases, oxidizing agents	RoHS
Polyacetal	POM	-40 °C to +90 °C, (+110 °C, 500 h)	Natural (NA)	UL94 HB	- Limited brittleness sensitivity - Flexible at low temperature - Not moisture sensitive - Robust on impacts	RoHS
Polyamide 11	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	- Bio-plastic, derived from vegetable oil - Strong impact resistance at low temperature - Very low moisture absorption - Weather-resistant - Good chemical resistance	HF RoHS
Polyamide 12	PA12	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	- Good chemical resistance to: acids, bases, oxidizing agents - UV-resistant	HF RoHS
Polyamide 4.6	PA46	-40 °C to +150 °C (5000 h), +195 °C (500 h)	Natural (NA), Grey (GY)	UL94 V2	- Resistance to high temperatures - Very moisture sensitive - Low smoke sensitive	HF LFH RoHS
Polyamide 6	PA6	-40 °C to +80 °C	Black (BK)	UL94 V2	High yield strength	RoHS
Polyamide 6, high impact modified	PA6HIR	-40 °C to +80 °C	Black (BK)	UL94 HB	- Limited brittleness sensitivity - Higher flexibility at low temperature	RoHS
Polyamide 6.6	PA66	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK), Natural (NA)	UL94 V2	High yield strength	HF RoHS
Polyamide 6.6, glass-fibre reinforced	PA66GF13, PA66GF15	-40 °C to +105 °C	Black (BK)	UL94 HB	Good resistance to: lubricants, vehicle fuel, salt water and many solvents	HF RoHS
Polyamide 6.6, heat and UV stabilised	PA66HSW	-40 °C to +105 °C	Black (BK)	UL94 V2	- High yield strength - Modified elevated max. temperature - UV-resistant	HF RoHS
Polyamide 6.6, heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL94 V2	- High yield strength - Modified elevated max. temperature	HF RoHS
Polyamide 6.6, high impact modified	PA66HIR	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	- Limited brittleness sensitivity - Higher flexibility at low temperature	RoHS
Polyamide 6.6, high impact modified, heat and UV stabilised	PA66HIRHSW	-40 °C to +110 °C	Black (BK)	UL94 HB	- Limited brittleness sensitivity - Higher flexibility at low temperature - Modified elevated max. temperature - High yield strength, UV-resistant	HF RoHS
Polyamide 6.6, high impact modified, heat stabilised	PA66HIRHS	-40 °C to +105 °C	Black (BK)	UL94 HB	- Limited brittleness sensitivity - Higher flexibility at low temperature - Modified elevated max. temperature	RoHS
Polyamide 6.6, high impact modified, scan black	PA66HIR(S)	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	- Limited brittleness sensitivity - Higher flexibility at low temperature	HF RoHS
Polyamide 6.6, UV-resistant	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL94 V2	- High yield strength - UV-resistant	HF RoHS

Tefzel® is a registered trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel®-Tie. **More colours on request.

In addition to Tefzel® from DuPont HellermannTyton is also using equivalent E/TFE raw material from other suppliers.

*These details are only rough guide values. They should not be regarded as a material specification and are no substitute for a suitability test. Please see our datasheets for further details.

HF = Halogenfree

LFH = Limited Fire Hazard

RoHS = Restriction of Hazardous Substances



= Minimum Loop Tensile Strength
for Cable Ties (Newton)

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
Polyamide 6.6, with metal particles	PA66MP	-40 °C to +85 °C, (+105 °C, 500 h)	Blue (BU)	UL94 HB	- High yield strength - Metal and X-Ray detectable	HF RoHS
Polyamide 6.6 V0	PA66V0	-40 °C to +85 °C	White (WH)	UL94 V0	- High yield strength - Low smoke emission	HF LFH RoHS
Polyamide 6.6 V0, High Oxygen Index	PA66V0-HOI	-40 °C to +85 °C, (+105 °C, 500 h)	White (WH)	UL94 V0	- High yield strength - Low smoke emissions	HF LFH RoHS
Polyester	SP	-50 °C to +150 °C	Black (BK)	Halogen free	- UV-resistant - Good chemical resistance to: most acids, alkalis and oils	HF LFH RoHS
Polyetheretherketone	PEEK	-55 °C to +240 °C	Beige (BGE)	UL94 V0	- Resistance to radioactivity - Not moisture sensitive - Good chemical resistance to: acids, bases, oxidizing agents	HF LFH RoHS
Polyethylene	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL94 HB	- Low moisture absorption - Good chemical resistance to: most acids, alcohol and oils	HF RoHS
Polyolefin	PO	-40 °C to +90 °C	Black (BK)	UL94 V0	Low smoke emissions	HF LFH RoHS
Polypropylene	PP	-40 °C to +115 °C	Black (BK), Natural (NA)	UL94 HB	- Floats in water - Moderate yield strength - Good chemical resistance to: organic acids	HF RoHS
Polypropylene, Ethylene- Propylene-Dien- Terpolymere-rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL94 HB	- Good resistance to high temperatures - Good chemical and abrasion resistance	HF RoHS
Polypropylene with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL94 HB	- Floats in certain liquids - Metal and X-Ray detectable - Heat resistant - Moderate yield strength - Good chemical resistance	RoHS
Polyvinylchloride	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL94 V0	- Low moisture absorption - Good chemical resistance to: acids, ethanol and oil	RoHS
Stainless Steel, Stainless Steel	SS304, SS316	-80 °C to +538 °C	Natural (NA)	Non burning	- Corrosion resistant - Antimagnetic - Weather resistant - Outstanding chemical resistance	HF LFH RoHS
Thermoplastic Polyurethane	TPU	-40 °C to +85 °C	Black (BK)	UL94 HB	- High elasticity - Good chemical resistance to: acids, bases and oxidizing agents	HF RoHS

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for Cable Ties (Newton)

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