

### Plastic P-Clamps

#### HP-Series

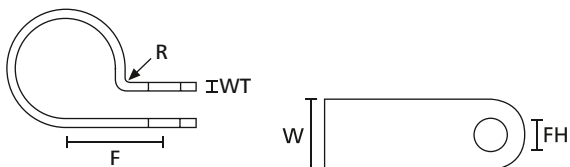
For permanent or semi-permanent cable fixings this range of plastic P-Clamps can be used in many industries. Their light weight makes them particularly suitable for use in areas such as aircraft and aerospace where minimising weight, but retaining a strong fixing, is vitally important.

#### Features and benefits

- Manufactured from Polyamide
- Good temperature resistance and high strength
- Wide range of sizes for every application
- Can be used without cable ties



P-Clamps H1P - H18P in different dimensions.



P-Clamp H1P - H18P (side view)

P-Clamp H1P - H18P (plan view)



**Material specification**  
please see page 26.

TYPE	Hole Ø (FH)	Bundle Ø max.	Fixing Hole Centres (F)	Material	Colour	Article-No.
H1P	4.2	3.2	8.5	PA66HS	Black (BK)	211-60000
H2P	4.2	5.0	9.5	PA66HS	Black (BK)	211-60001
H3P	4.2	6.5	10.0	PA66HS	Black (BK)	211-60002
H4P	4.2	8.0	10.0	PA66	Natural (NA)	211-60049
	4.2	8.0	10.0	PA66HS	Black (BK)	211-60003
H5P	4.2	9.5	11.0	PA66	Natural (NA)	211-60059
	4.2	9.5	11.0	PA66HS	Black (BK)	211-60004
H6P	4.2	11.0	13.0	PA66	Natural (NA)	211-60069
	4.2	11.0	13.0	PA66HS	Black (BK)	211-60005
H7P	4.2	12.5	14.0	PA66HS	Black (BK)	211-60006
H8P	4.2	14.0	15.0	PA66HS	Black (BK)	211-60007
H9P	4.2	16.0	16.0	PA66HS	Black (BK)	211-60008
H10P	4.2	17.5	17.0	PA66HS	Black (BK)	211-60009
H11P	4.2	19.0	18.0	PA66	Natural (NA)	211-60119
H12P	4.2	20.5	19.0	PA66	Natural (NA)	211-60129
H13P	5.2	22.0	20.5	PA66	Natural (NA)	211-60139
H14P	5.2	24.0	21.5	PA66	Natural (NA)	211-60149
H15P	5.2	25.5	23.0	PA66	Natural (NA)	211-60159
H16P	5.2	28.5	24.0	PA66	Natural (NA)	211-60169
H18P	5.2	35.0	27.5	PA66	Natural (NA)	211-60189

All dimensions in mm. Subject to technical changes.

**EN 45545-2**

For product specific approvals and specifications please refer to the Appendix.



Add items to your watchlist!

[www.HT.click/9-189](http://www.HT.click/9-189)



## Material Specification Overview

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
Aluminium alloy	AL	-40 °C to +180 °C	Natural (NA)		<ul style="list-style-type: none"> <li>Corrosion resistant</li> <li>Antimagnetic</li> </ul>	RoHS
Chloroprene Rubber	CR	-20 °C to +80 °C	Black (BK)		<ul style="list-style-type: none"> <li>Weather resistant</li> <li>High yield strength</li> </ul>	RoHS
Ethylene Tetrafluoroethylene (Tefzel®)	E/TFE	-80 °C to +170 °C	Blue (BU)	UL 94 V0	<ul style="list-style-type: none"> <li>Resistance to radioactivity</li> <li>UV resistant, not moisture sensitive</li> <li>Good chemical resistance to acids, bases, oxidizing agents</li> </ul>	RoHS
Polyacetal	POM	-40 °C to +90 °C, (+110 °C, 500 h)	Natural (NA)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Flexible at low temperature</li> <li>Not moisture sensitive</li> <li>Robust on impact</li> </ul>	RoHS
Polyamide 11	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Bio-plastic, derived from vegetable oil</li> <li>Strong impact resistance at low temperature</li> <li>Very low moisture absorption</li> <li>Weather resistant</li> <li>Good chemical resistance</li> </ul>	HF RoHS
Polyamide 12	PA12	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Good chemical resistance to acids, bases, oxidizing agents</li> <li>UV resistant</li> </ul>	HF RoHS
Polyamide 4.6	PA46	-40 °C to +130 °C, (+150 °C, 5000 h; +195 °C, 500 h)	Natural (NA), Grey (GY)	UL 94 V2	<ul style="list-style-type: none"> <li>Resistance to high temperatures</li> <li>Very moisture sensitive</li> <li>Low smoke sensitivity</li> </ul>	HF LFH RoHS
Polyamide 6	PA6	-40 °C to +80 °C	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> </ul>	RoHS
Polyamide 6, high impact modified	PA6HIR	-40 °C to +80 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	RoHS
Polyamide 6.6	PA66	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK), Natural (NA)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> </ul>	HF RoHS
Polyamide 6.6, glass-fibre reinforced	PA66GF13	-40 °C to +105 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Good resistance to lubricants, fuels, salt water and solvents</li> </ul>	HF RoHS
Polyamide 6.6, heat and UV-stabilised	PA66HSUV	-40 °C to +105 °C	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Modified elevated maximum temperature</li> <li>UV resistant</li> </ul>	HF RoHS
Polyamide 6.6, heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Modified elevated maximum temperature</li> </ul>	HF RoHS
Polyamide 6.6, high impact modified	PA66HIR	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	RoHS
Polyamide 6.6, high impact modified, heat and UV-stabilised	PA66HIRHSUV	-40 °C to +110 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> <li>Modified elevated maximum temperature</li> <li>High yield strength, UV resistant</li> </ul>	RoHS
Polyamide 6.6, high impact modified, heat stabilised	PA66HIRHS	-40 °C to +105 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> <li>Modified elevated maximum temperature</li> </ul>	RoHS
Polyamide 6.6, high impact modified, scan black)	PA66HIR(S)	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	RoHS
Polyamide 6.6, UV-resistant	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> <li>UV resistant</li> </ul>	HF RoHS

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
<b>Polyamide 6.6,</b> with metal particles	PA66MP	-40 °C to +85 °C, (+105 °C, 500 h)	Blue (BU)	UL 94 HB	• High yield strength • Metal and X-Ray detectable	HF RoHS
<b>Polyamide 6.6,</b> with metal particles	PA66MP+	-40 °C to +85 °C	Blue (BU)	not flame retardant	• High yield strength • Metal and X-Ray detectable	HF RoHS
<b>Polyamide 6.6 V0</b>	PA66V0	-40 °C to +85 °C	White (WH)	UL 94 V0	• High yield strength • Low smoke emission	HF LFH RoHS
<b>Polyester</b>	SP	-50 °C to +150 °C	Black (BK)		• UV resistant • Good chemical resistance to most acids, bases and oils	HF LFH RoHS
<b>Polyetheretherketone</b>	PEEK	-55 °C to +240 °C	Beige (BGE)	UL 94 V0	• Resistance to radioactivity • Not moisture sensitive • Good chemical resistance to acids, bases, oxidising agents	HF LFH RoHS
<b>Polyethylene</b>	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL 94 HB	• Low moisture absorption • Good chemical resistance to most acids, bases, alcohol, oils	HF RoHS
<b>Polyolefin</b>	PO	-40 °C to +90 °C	Black (BK)	UL 94 V0	• Low smoke emissions	HF LFH RoHS
<b>Polypropylene</b>	PP	-40 °C to +115 °C	Black (BK), Natural (NA)	UL 94 HB	• Floats in water • Moderate yield strength • Good chemical resistance to acids, bases and solvents	HF RoHS
<b>Polypropylene, Ethylene Propylene Diene Terpolymer</b> rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL 94 HB	• Good resistance to high temperature • Good chemical and abrasion resistance	HF RoHS
<b>Polypropylene</b> with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL 94 HB	• Metal and X-Ray detectable • Heat resistant • Moderate yield strength • Good chemical resistance	RoHS
<b>Polypropylene</b> with metal particles	PPMP+	-40 °C to +85 °C	Blue (BU)	not flame retardant	• High yield strength • Metal and X-Ray detectable	HF RoHS
<b>Polyvinylchloride</b>	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL 94 V0	• Low moisture absorption • Good chemical resistance to acids, bases, salts, alcohol, oils	RoHS
<b>Stainless Steel, Stainless Steel</b>	SS304, SS316	-80 °C to +538 °C	Natural (NA)	non-burning	• Corrosion resistant • Antimagnetic • Weather resistant • Chemical resistance • SS316 also resistant against seawater, salt spray and anorganic acids	HF LFH RoHS
<b>Thermoplastic Polyurethane</b>	TPU	-40 °C to +85 °C	Black (BK)	UL 94 HB	• High elasticity • Good chemical resistance to acids, bases and oxidising agents	HF RoHS

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

\*\*Further colours available on request.

\*These details are only guide values. They should not be regarded as an exhaustive material specification and are no substitute for suitability tests. Please see our datasheets for further details.



Minimum Loop Tensile Strength  
for Cable Ties (newton)

HF = Halogenfree

LFH = Limited Fire Hazard

RoHS = Restriction of Hazardous Substances