

## Cable ties for parallel routing

### DH-Series

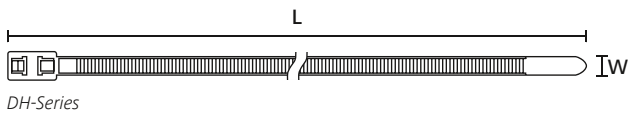
Double loop head ties are ideal for separation of two cable runs without the need for additional cable ties. Additionally these ties are widely used within the packaging industry. The first loop closes and secures the bag whilst the second loop can be made into a carrying handle (subject to weight).

#### Features and benefits

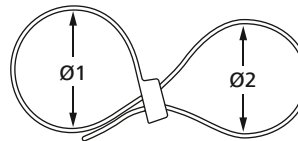
- Possibility to separate bundles with only one cable tie
- Cable tie with two heads creating an inside and outside serrated loop
- Available in a wide range of materials
- Bundles can be of different diameter
- Maximum bundle diameter is a maximum combined bundle
- Easy application either manually or with a processing tool



DH-Series cable ties for parallel routing.



DH-Series



DH-Series maximum combined bundle diameter

| TYPE   | Width (W) | Length (L) | Bundle Ø max. | N   | Min. Tensile Strength 2nd loop | Material | Colour       | Pack Cont. | Tools   | Article-No. |
|--------|-----------|------------|---------------|-----|--------------------------------|----------|--------------|------------|---------|-------------|
| T50RDH | 4.7       | 210.0      | 38.0          | 225 | 180 N                          | PA46     | Grey (GY)    | 100 pcs.   | 2;5-6;8 | 117-05168   |
|        | 4.7       | 210.0      | 38.0          | 225 | 180 N                          | PA66     | Natural (NA) | 100 pcs.   | 2;5-6;8 | 117-05002   |
|        | 4.7       | 210.0      | 38.0          | 225 | 180 N                          | PA66HS   | Black (BK)   | 100 pcs.   | 2;5-6;8 | 117-05050   |
|        | 4.7       | 210.0      | 38.0          | 225 | 180 N                          | PA66W    | Black (BK)   | 500 pcs.   | 2;5-6;8 | 117-05060   |
|        | 4.7       | 210.0      | 38.0          | 225 | 180 N                          | PA66     | Black (BK)   | 100 pcs.   | 2;5-6;8 | 117-05000   |
| T50IDH | 4.7       | 305.0      | 76.2          | 225 | 180 N                          | PA66HS   | Black (BK)   | 1,000 pcs. | 2;5-6;8 | 117-05350   |
|        | 4.7       | 305.0      | 76.2          | 225 | 180 N                          | PA66W    | Black (BK)   | 100 pcs.   | 2;5-6;8 | 117-05360   |
| T50LDH | 4.7       | 395.0      | 100.0         | 225 | 180 N                          | PA66HS   | Black (BK)   | 100 pcs.   | 2;5-6;8 | 117-00008   |

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

| Recommended Tools |      |          |      |      |
|-------------------|------|----------|------|------|
|                   | 2    | 5        | 6    | 8    |
|                   | MK20 | MK3PNSP2 | EVO7 | MK7P |
|                   | 549  | 550      | 552  | 554  |

For more information on toolings please refer to the Application Tooling chapter.



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



Add items to your watchlist!

[www.HT.click/9-57](http://www.HT.click/9-57)



## 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<br>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<br>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<br>LFH<br>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<br>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<br>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<br>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<br>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<br>RoHS              |

| MATERIAL                                                                                        | Material Shortcut | Operating Temperature                 | Colour**                    | Flammability           | Material Properties*                                                                                                                                                  | Material Specifications |
|-------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|-----------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>Polyamide 6.6,</b><br>with metal particles                                                   | PA66MP            | -40 °C to +85 °C,<br>(+105 °C, 500 h) | Blue (BU)                   | UL 94 HB               | • High yield strength<br>• Metal and X-Ray detectable                                                                                                                 | HF<br>RoHS              |
| <b>Polyamide 6.6,</b><br>with metal particles                                                   | PA66MP+           | -40 °C to +85 °C                      | Blue (BU)                   | not flame<br>retardant | • High yield strength<br>• Metal and X-Ray detectable                                                                                                                 | HF<br>RoHS              |
| <b>Polyamide 6.6 V0</b>                                                                         | PA66V0            | -40 °C to +85 °C                      | White (WH)                  | UL 94 V0               | • High yield strength<br>• Low smoke emission                                                                                                                         | HF<br>LFH<br>RoHS       |
| <b>Polyester</b>                                                                                | SP                | -50 °C to +150 °C                     | Black (BK)                  |                        | • UV resistant<br>• Good chemical resistance to most<br>acids, bases and oils                                                                                         | HF<br>LFH<br>RoHS       |
| <b>Polyetheretherketone</b>                                                                     | PEEK              | -55 °C to +240 °C                     | Beige (BGE)                 | UL 94 V0               | • Resistance to radioactivity<br>• Not moisture sensitive<br>• Good chemical resistance to acids,<br>bases, oxidising agents                                          | HF<br>LFH<br>RoHS       |
| <b>Polyethylene</b>                                                                             | PE                | -40 °C to +50 °C                      | Black (BK),<br>Grey (GY)    | UL 94 HB               | • Low moisture absorption<br>• Good chemical resistance to most<br>acids, bases, alcohol, oils                                                                        | HF<br>RoHS              |
| <b>Polyolefin</b>                                                                               | PO                | -40 °C to +90 °C                      | Black (BK)                  | UL 94 V0               | • Low smoke emissions                                                                                                                                                 | HF<br>LFH<br>RoHS       |
| <b>Polypropylene</b>                                                                            | PP                | -40 °C to +115 °C                     | Black (BK),<br>Natural (NA) | UL 94 HB               | • Floats in water<br>• Moderate yield strength<br>• Good chemical resistance to acids,<br>bases and solvents                                                          | HF<br>RoHS              |
| <b>Polypropylene,<br/>Ethylene Propylene<br/>Diene Terpolymer</b><br>rubber free of Nitrosamine | PP, EPDM          | -20 °C to +95 °C                      | Black (BK)                  | UL 94 HB               | • Good resistance to high temperature<br>• Good chemical and abrasion<br>resistance                                                                                   | HF<br>RoHS              |
| <b>Polypropylene</b><br>with metal particles                                                    | PPMP              | -40 °C to +115 °C                     | Blue (BU)                   | UL 94 HB               | • Metal and X-Ray detectable<br>• Heat resistant<br>• Moderate yield strength<br>• Good chemical resistance                                                           | RoHS                    |
| <b>Polypropylene</b><br>with metal particles                                                    | PPMP+             | -40 °C to +85 °C                      | Blue (BU)                   | not flame<br>retardant | • High yield strength<br>• Metal and X-Ray detectable                                                                                                                 | HF<br>RoHS              |
| <b>Polyvinylchloride</b>                                                                        | PVC               | -10 °C to +70 °C                      | Black (BK),<br>Natural (NA) | UL 94 V0               | • Low moisture absorption<br>• Good chemical resistance to acids,<br>bases, salts, alcohol, oils                                                                      | RoHS                    |
| <b>Stainless Steel,<br/>Stainless Steel</b>                                                     | SS304, SS316      | -80 °C to +538 °C                     | Natural (NA)                | non-burning            | • Corrosion resistant<br>• Antimagnetic<br>• Weather resistant<br>• Chemical resistance<br>• SS316 also resistant against seawater,<br>salt spray and anorganic acids | HF<br>LFH<br>RoHS       |
| <b>Thermoplastic<br/>Polyurethane</b>                                                           | TPU               | -40 °C to +85 °C                      | Black (BK)                  | UL 94 HB               | • High elasticity<br>• Good chemical resistance to acids,<br>bases and oxidising agents                                                                               | HF<br>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 a exhaustive material specification and are no substitute for suitability tests. 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)