## Cable Ties inside serrated

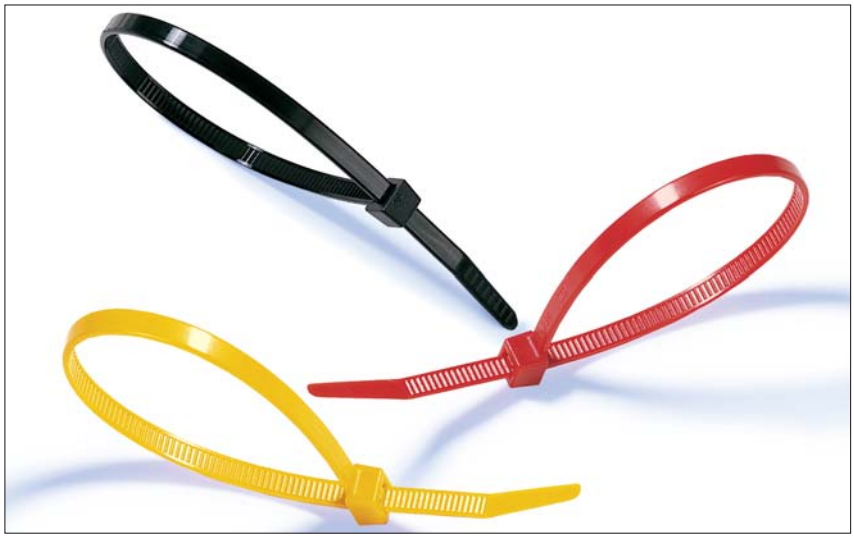
**• T-Series**

### Features and Benefits

Available in a wide range of materials, these cable ties all feature internal serrations allowing for a positive hold onto cable, hose and pipe bundles. The design of the head guarantees a high tensile strength whilst allowing a very low insertion force, this, combined with the bent tail design of many of the ties, ensures a simple and quick installation. Whilst easily installed by hand, manual and pneumatic (for high volume applications) tensioning tools are available to ensure a consistent and safe installation.

### Application

For the routing, bundling and securing of cables, pipes and hoses.



*T Series for bundling and securing of cables for a wide range of applications, available in various colours and materials.*

| | Material | Page Number | Material | Page Number |
|---|---|---|---|---|
| | Polyamide 6.6 (PA66)<br>Polyamide 6.6 Heat Stabilised (PA66HS)<br>Polyamide 6.6 High Imp. Mod. scan black (PA66HIR(S)) | **70**<br>**73**<br>**74** | Polyamide 6.6 UV Resistant (PA66W)<br>Polypropylene (PP) | **69**<br>**76** |
| | Polyamide 6.6 (PA66)<br>Polyamide 4.6 (PA46) | **68**<br>**75** | Polyamide 6.6 Heat Stabilised (PA66HS)<br>Polypropylene (PP) | **72**<br>**76** |
| | Polyamide 6.6 (PA66) | **71** | Ethylenterafluorineethylen - E/TFE (Tefzel®) | **76** |
| | Polyamide 6.6 V0 (PA66V0) | **75** | | |
| | Polyamide 4.6 (PA46) | **75** | | |

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 is also using equivalent E/TFE raw material from other suppliers.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

# Cable Ties Inside Serrated

## Cable Ties Polyamide 6.6 standard

- **T-Series in PA66 natural**

Material Data

| | |
|---|---|
| Material | **Polyamide 6.6 (PA66)** |
| Operating Temperature | **-40 °C to +85 °C Continuous, (+105 °C for 500 h)** |
| Flammability | **UL94 V2** |

HF halogenfree RoHS

Technical Table

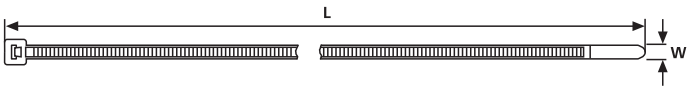
| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| Polyamide 6.6 (PA66) | | | | | | | | |
| 111-02809 | **T18S** | 83 | 2.3 | 16.0 | 80 | PA66 | Natural (NA) | 1–3, 5 |
| 111-01919 | **T18R** | 100 | 2.5 | 22 | 80 | PA66 | Natural (NA) | 1–3, 5 |
| 111-02319 | **T18I** | 145 | 2.5 | 35.0 | 80 | PA66 | Natural (NA) | 1–3, 5 |
| 111-02119 | **T18L** | 205 | 2.5 | 55 | 80 | PA66 | Natural (NA) | 1–3, 5 |
| 111-02519 | **T25L** | 240 | 2.8 | 65.0 | 110 | PA66 | Natural (NA) | 1–3, 5 |
| 111-02619 | **T25LL** | 330 | 2.8 | 95.0 | 110 | PA66 | Natural (NA) | 1–3, 5 |
| 111-03219 | **T30R** | 150 | 3.5 | 35 | 135 | PA66 | Natural (NA) | 1–3, 5 |
| 111-03419 | **T30L** | 198 | 3.5 | 50 | 135 | PA66 | Natural (NA) | 1–3, 5 |
| 111-03549 | **T30LL** | 290 | 3.5 | 80.0 | 135 | PA66 | Natural (NA) | 1–3, 5 |
| 111-03819 | **T40R** | 175 | 4.0 | 40.0 | 180 | PA66 | Natural (NA) | 1–5 |
| 111-05819 | **T50S** | 150.0 | 4.6 | 35.0 | 225 | PA66 | Natural (NA) | 1–10 |
| 111-05013 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA66 | Natural (NA) | 1–10 |
| 111-06201 | **T50M** | 245 | 4.6 | 65.0 | 225 | PA66 | Natural (NA) | 1–10 |
| 111-05219 | **T50I** | 300 | 4.6 | 85.0 | 225 | PA66 | Natural (NA) | 1–10 |
| 111-05409 | **T50L** | 390 | 4.6 | 110 | 225 | PA66 | Natural (NA) | 1–10 |
| 111-05019 | **T80R** | 210 | 4.7 | 55 | 355 | PA66 | Natural (NA) | 1–10 |
| 111-08229 | **T80I** | 300 | 4.7 | 85 | 355 | PA66 | Natural (NA) | 1–10 |
| 111-05419 | **T80L** | 390 | 4.7 | 110 | 355 | PA66 | Natural (NA) | 1–10 |
| 111-12829 | **T120S** | 225.0 | 7.6 | 55.0 | 535 | PA66 | Natural (NA) | 6–10 |
| 111-12219 | **T120I** | 300 | 7.6 | 80.0 | 535 | PA66 | Natural (NA) | 6–10 |
| 111-12019 | **T120R(E)** | 387 | 7.6 | 100 | 535 | PA66 | Natural (NA) | 6–10 |
| 111-12619 | **T120M** | 460 | 7.6 | 130 | 535 | PA66 | Natural (NA) | 6–10 |
| 111-12704 | **T120XM** | 600 | 7.6 | 175 | 535 | PA66 | Natural (NA) | 6–10 |
| 111-12429 | **T120L** | 760 | 7.6 | 225 | 535 | PA66 | Natural (NA) | 6–10 |
| 111-14819 | **T150R** | 365 | 7.6 | 100 | 670 | PA66 | Natural (NA) | 6–10 |
| 111-15619 | **T150M** | 525 | 8.9 | 150 | 780 | PA66 | Natural (NA) | 6–9 |
| 111-15419 | **T150L** | 820 | 8.9 | 245 | 780 | PA66 | Natural (NA) | 6–9 |
| 111-15519 | **T150XL** | 1095 | 8.9 | 330 | 780 | PA66 | Natural (NA) | 6–9 |
| 111-15304 | **T150XLL** | 1325 | 8.9 | 405 | 780 | PA66 | Natural (NA) | 6–9 |
| 111-24705 | **T250S** | 225 | 12.5 | 55.0 | 1115 | PA66 | Natural (NA) | 7-9 |
| 111-25103 | **T250X** | 370 | 12.5 | 100 | 1115 | PA66 | Natural (NA) | 7-9 |
| 111-24803 | **T250R** | 520 | 12.5 | 145 | 1115 | PA66 | Natural (NA) | 7-9 |
| 111-25002 | **T250M** | 565 | 12.5 | 150 | 1115 | PA66 | Natural (NA) | 7-9 |
| 111-25219 | **T250I** | 725 | 12.5 | 203 | 1115 | PA66 | Natural (NA) | 7-9 |
| 111-00466 | **T250XL** | 1030 | 12.5 | 305 | 1115 | PA66 | Natural (NA) | 7-9 |

All dimensions in mm. Subject to technical changes.

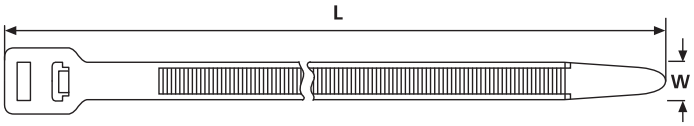
Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

## Cable Ties for outdoor use (UV-resistant)

- **T-Series in PA66W black**




*T18S – T255M*




*T250-Series*

Material Data

| | |
|---|---|
| Material | **Polyamide 6.6 UV Resistant (PA66W)** |
| Operating Temperature | **-40 °C to +85 °C Continuous, (+105 °C for 500 h)** |
| Flammability | **UL94 V2** |

Technical Table

| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| Polyamide 6.6 UV Stabilised | | | | | | | | |
| 111-01960 | **T18R** | 100 | 2.5 | 22 | 80 | PA66W | Black (BK) | 1–3, 5 |
| 111-02360 | **T18I** | 145 | 2.5 | 35.0 | 80 | PA66W | Black (BK) | 1–3, 5 |
| 111-02160 | **T18L** | 205 | 2.5 | 55 | 80 | PA66W | Black (BK) | 1–3, 5 |
| 111-02660 | **T25LL** | 330 | 2.8 | 95.0 | 110 | PA66W | Black (BK) | 1–3, 5 |
| 111-03260 | **T30R** | 150 | 3.5 | 35 | 135 | PA66W | Black (BK) | 1–3, 5 |
| 111-03460 | **T30L** | 198 | 3.5 | 50 | 135 | PA66W | Black (BK) | 1–3, 5 |
| 111-03580 | **T30LL** | 290 | 3.5 | 80.0 | 135 | PA66W | Black (BK) | 1–3, 5 |
| 111-03860 | **T40R** | 175 | 4.0 | 40.0 | 180 | PA66W | Black (BK) | 1–5 |
| 111-05860 | **T50S** | 150 | 4.6 | 35.0 | 225 | PA66W | Black (BK) | 1–10 |
| 111-04889 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA66W | Black (BK) | 1–10 |
| 111-06206 | **T50M** | 245 | 4.6 | 65.0 | 225 | PA66W | Black (BK) | 1–10 |
| 111-05260 | **T50I** | 300 | 4.6 | 85.0 | 225 | PA66W | Black (BK) | 1–10 |
| 111-05440 | **T50L** | 390 | 4.6 | 110 | 225 | PA66W | Black (BK) | 1–10 |
| 111-06000 | **T50LL** | 445 | 4.6 | 130 | 225 | PA66W | Black (BK) | 1–10 |
| 111-05060 | **T80R** | 210 | 4.7 | 55 | 355 | PA66W | Black (BK) | 1–10 |
| 111-08290 | **T80I** | 300 | 4.7 | 85 | 355 | PA66W | Black (BK) | 1–10 |
| 111-05460 | **T80L** | 390 | 4.7 | 110 | 355 | PA66W | Black (BK) | 1–10 |
| 111-12830 | **T120S** | 225 | 7.6 | 55.0 | 535 | PA66W | Black (BK) | 6–10 |
| 111-12230 | **T120I** | 300 | 7.6 | 80.0 | 535 | PA66W | Black (BK) | 6–10 |
| 111-12060 | **T120R(E)** | 387 | 7.6 | 100 | 535 | PA66W | Black (BK) | 6–10 |
| 111-12660 | **T120M** | 460 | 7.6 | 130 | 535 | PA66W | Black (BK) | 6–10 |
| 111-12430 | **T120L** | 760 | 7.6 | 225 | 535 | PA66W | Black (BK) | 6–10 |
| 111-14860 | **T150R(H)** | 365 | 7.6 | 100 | 670 | PA66W | Black (BK) | 6–10 |
| 111-15660 | **T150M** | 525 | 8.9 | 150 | 780 | PA66W | Black (BK) | 6–9 |
| 111-15460 | **T150L** | 820 | 8.8 | 245 | 780 | PA66W | Black (BK) | 6–9 |
| 111-15502 | **T150XL** | 1095 | 8.9 | 330 | 780 | PA66W | Black (BK) | 6–9 |
| 111-15305 | **T150XLL** | 1325 | 8.9 | 405 | 780 | PA66W | Black (BK) | 6–9 |
| 111-25100 | **T250X** | 370 | 12.5 | 100 | 1115 | PA66W | Black (BK) | 7-9 |
| 111-24805 | **T250R** | 520 | 12.5 | 145 | 1115 | PA66W | Black (BK) | 7-9 |

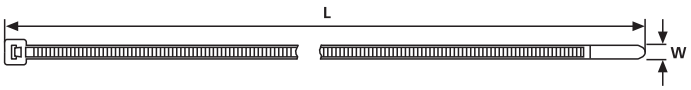
All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

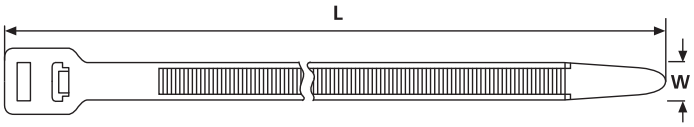
# Cable Ties Inside Serrated

## Cable Ties Polyamide 6.6 standard

- **T-Series in PA66 black**




*T18S – T255M*




*T250-Series*

Material Data

| | |
|---|---|
| Material | **Polyamide 6.6 (PA66)** |
| Operating Temperature | **-40 °C to +85 °C Continuous, (+105 °C for 500 h)** |
| Flammability | **UL94 V2** |

HF halogenfree

RoHS

Technical Table

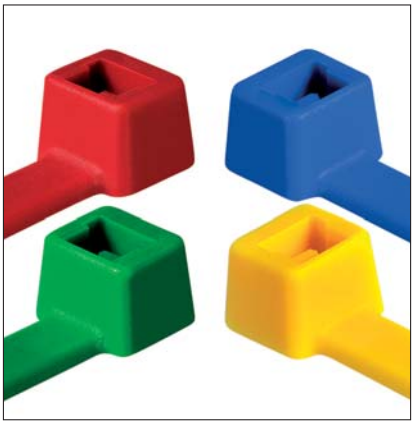
| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| Polyamide 6.6 (PA66) | | | | | | | | |
| 111-01910 | **T18R** | 100 | 2.5 | 22.0 | 80 | PA66 | Black (BK) | 1–3, 5 |
| 111-02370 | **T18I** | 145 | 2.5 | 35.0 | 80 | PA66 | Black (BK) | 1–3, 5 |
| 111-02110 | **T18L** | 205 | 2.5 | 55.0 | 80 | PA66 | Black (BK) | 1–3, 5 |
| 111-02500 | **T25L** | 240 | 2.8 | 65.0 | 110 | PA66 | Black (BK) | 1–3, 5 |
| 111-03210 | **T30R** | 150 | 3.5 | 35.0 | 135 | PA66 | Black (BK) | 1–3, 5 |
| 111-03410 | **T30L** | 198 | 3.5 | 50.0 | 135 | PA66 | Black (BK) | 1–3, 5 |
| 111-03500 | **T30LL** | 290.0 | 3.5 | 80.0 | 135 | PA66 | Black (BK) | 1–3, 5 |
| 111-05810 | **T50S** | 150.0 | 4.6 | 35.0 | 225 | PA66 | Black (BK) | 1–10 |
| 111-05000 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA66 | Black (BK) | 1–10 |
| 111-06200 | **T50M** | 245.0 | 4.6 | 65.0 | 225 | PA66 | Black (BK) | 1–10 |
| 111-05210 | **T50I** | 300 | 4.6 | 85.0 | 225 | PA66 | Black (BK) | 1–10 |
| 111-05400 | **T50L** | 390.0 | 4.6 | 110 | 225 | PA66 | Black (BK) | 1–10 |
| 111-06002 | **T50LL** | 445 | 4.6 | 130 | 225 | PA66 | Black (BK) | 1–10 |
| 111-08010 | **T80R** | 210 | 4.7 | 55.0 | 355 | PA66 | Black (BK) | 1–10 |
| 111-08210 | **T80I** | 300 | 4.7 | 85.0 | 355 | PA66 | Black (BK) | 1–10 |
| 111-05410 | **T80L** | 390 | 4.7 | 110 | 355 | PA66 | Black (BK) | 1–10 |
| 111-12210 | **T120I** | 300 | 7.6 | 80.0 | 535 | PA66 | Black (BK) | 6–10 |
| 111-12010 | **T120R(E)** | 387 | 7.6 | 100 | 535 | PA66 | Black (BK) | 6–10 |
| 111-12610 | **T120M** | 460 | 7.6 | 130 | 535 | PA66 | Black (BK) | 6–10 |
| 111-12701 | **T120XM** | 600 | 7.6 | 175 | 535 | PA66 | Black (BK) | 6–10 |
| 111-12403 | **T120L** | 760 | 7.6 | 225 | 535 | PA66 | Black (BK) | 6–10 |
| 111-14810 | **T150R** | 365 | 7.6 | 100 | 670 | PA66 | Black (BK) | 6–10 |
| 111-00124 | **T150M** | 525 | 8.9 | 150 | 780 | PA66 | Black (BK) | 6–9 |
| 111-15405 | **T150L** | 820 | 8.9 | 245 | 780 | PA66 | Black (BK) | 6–9 |
| 111-15500 | **T150XL** | 1095 | 8.9 | 330 | 780 | PA66 | Black (BK) | 6–9 |
| 111-15300 | **T150XLL** | 1325 | 8.9 | 405 | 780 | PA66 | Black (BK) | 6–9 |
| 111-25102 | **T250X** | 370 | 12.5 | 100 | 1115 | PA66 | Black (BK) | 7-9 |
| 111-25001 | **T250M** | 565 | 12.5 | 150 | 1115 | PA66 | Black (BK) | 7-9 |
| 111-24601 | **T250L** | 880 | 12.5 | 254 | 1115 | PA66 | Black (BK) | 7-9 |
| 111-25200 | **T250XL** | 1030 | 12.5 | 305 | 1115 | PA66 | Black (BK) | 7-9 |

All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

## Cable Ties Polyamide 6.6 standard

- **T-Series in PA66 coloured**



Material Data

| | |
|---|---|
| Material | **Polyamide 6.6 (PA66)** |
| Operating Temperature | **-40 °C to +85 °C Continuous, (+105 °C for 500 h)** |
| Flammability | **UL94 V2** |

Technical Table

| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| Polyamide 6.6 Colours | | | | | | | | |
| 116-01816 | **T18R** | 100 | 2.5 | 22.0 | 80 | PA66 | Blue (BU) | 1–3, 5 |
| 111-03008 | **T30R** | 150 | 3.5 | 35.0 | 135 | PA66 | Blue (BU) | 1–3, 5 |
| 111-04800 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA66 | Blue (BU) | 1–10 |
| 111-05404 | **T50L** | 390 | 4.6 | 110 | 225 | PA66 | Blue (BU) | 1–10 |
| 116-08016 | **T80R** | 210 | 4.7 | 55.0 | 355 | PA66 | Blue (BU) | 1–10 |
| 116-05416 | **T80L** | 390 | 4.7 | 110 | 355 | PA66 | Blue (BU) | 1–10 |
| 116-01815 | **T18R** | 100 | 2.5 | 22.0 | 80 | PA66 | Green (GN) | 1–3, 5 |
| 111-03014 | **T30R** | 150 | 3.5 | 35.0 | 135 | PA66 | Green (GN) | 1–3, 5 |
| 111-05402 | **T50L** | 390 | 4.6 | 110 | 225 | PA66 | Green (GN) | 1–10 |
| 116-08015 | **T80R** | 210 | 4.7 | 55.0 | 355 | PA66 | Green (GN) | 1–10 |
| 116-05415 | **T80L** | 390 | 4.7 | 110 | 355 | PA66 | Green (GN) | 1–10 |
| 111-12001 | **T120R(E)** | 387 | 7.6 | 100 | 535 | PA66 | Green (GN) | 6–10 |
| 116-01812 | **T18R** | 100 | 2.5 | 22.0 | 80 | PA66 | Red (RD) | 1–3, 5 |
| 111-03004 | **T30R** | 150 | 3.5 | 35.0 | 135 | PA66 | Red (RD) | 1–3, 5 |
| 111-04804 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA66 | Red (RD) | 1–10 |
| 111-05406 | **T50L** | 390 | 4.6 | 110 | 225 | PA66 | Red (RD) | 1–10 |
| 116-08012 | **T80R** | 210 | 4.7 | 55.0 | 355 | PA66 | Red (RD) | 1–10 |
| 116-05412 | **T80L** | 390 | 4.7 | 110 | 355 | PA66 | Red (RD) | 1–10 |
| 111-12002 | **T120R(E)** | 387 | 7.6 | 100 | 535 | PA66 | Red (RD) | 6–10 |
| 116-01814 | **T18R** | 100 | 2.5 | 22.0 | 80 | PA66 | Yellow (YE) | 1–3, 5 |
| 111-03006 | **T30R** | 150 | 3.5 | 35.0 | 135 | PA66 | Yellow (YE) | 1–3, 5 |
| 111-04805 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA66 | Yellow (YE) | 1–10 |
| 111-05428 | **T50L** | 390 | 4.6 | 110 | 225 | PA66 | Yellow (YE) | 1–10 |
| 116-08014 | **T80R** | 210 | 4.7 | 55.0 | 355 | PA66 | Yellow (YE) | 1–10 |
| 116-05414 | **T80L** | 390 | 4.7 | 110 | 355 | PA66 | Yellow (YE) | 1–10 |
| 116-15014 | **T150R(H)** | 365 | 7.6 | 100 | 670 | PA66 | Yellow (YE) | 6–10 |

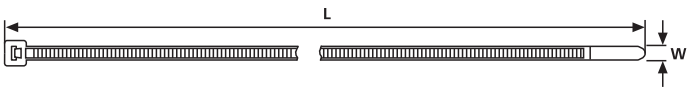
All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

# Cable Ties Inside Serrated

## Cable Ties for temperatures up to + 105°C (heat stabilised)

- **T-Series in PA66HS natural**




*T18S – T255M*

Material Data

| | |
|---|---|
| Material | **Polyamide 6.6 Heat Stabilised (PA66HS)** |
| Operating Temperature | **-40 °C to +105 °C Continuous, (+145 °C for 500 h)** |
| Flammability | **UL94 V2** |

Technical Table

| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| Polyamide 6.6 Heat Stabilised | | | | | | | | |
| 111-01959 | **T18R** | 100 | 2.5 | 22.0 | 80 | PA66HS | Natural (NA) | 1–3, 5 |
| 111-02359 | **T18I** | 145 | 2.5 | 35.0 | 80 | PA66HS | Natural (NA) | 1–3, 5 |
| 111-02159 | **T18L** | 205 | 2.5 | 55.0 | 80 | PA66HS | Natural (NA) | 1–3, 5 |
| 111-03259 | **T30R** | 150 | 3.5 | 35.0 | 135 | PA66HS | Natural (NA) | 1–3, 5 |
| 111-03459 | **T30L** | 190.0 | 3.5 | 50.0 | 135 | PA66HS | Natural (NA) | 1–3, 5 |
| 111-03569 | **T30LL** | 290 | 3.5 | 80.0 | 135 | PA66HS | Natural (NA) | 1–3, 5 |
| 111-03859 | **T40R** | 175 | 4.0 | 40.0 | 180 | PA66HS | Natural (NA) | 1–5 |
| 111-05859 | **T50S** | 150 | 4.6 | 35.0 | 225 | PA66HS | Natural (NA) | 1–10 |
| 111-04882 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA66HS | Natural (NA) | 1–10 |
| 111-05259 | **T50I** | 300 | 4.6 | 85.0 | 225 | PA66HS | Natural (NA) | 1–10 |
| 111-05436 | **T50L** | 390 | 4.6 | 110 | 225 | PA66HS | Natural (NA) | 1–10 |
| 111-05059 | **T80R** | 210 | 4.7 | 55.0 | 355 | PA66HS | Natural (NA) | 1–10 |
| 111-08259 | **T80I** | 300 | 4.7 | 85.0 | 355 | PA66HS | Natural (NA) | 1–10 |
| 111-05459 | **T80L** | 390 | 4.7 | 110 | 355 | PA66HS | Natural (NA) | 1–10 |
| 111-12824 | **T120S** | 225 | 7.6 | 55.0 | 535 | PA66HS | Natural (NA) | 6–10 |
| 111-12249 | **T120I** | 300 | 7.6 | 80.0 | 535 | PA66HS | Natural (NA) | 6–10 |
| 111-12059 | **T120R(E)** | 387 | 7.6 | 100 | 535 | PA66HS | Natural (NA) | 6–10 |
| 111-12719 | **T120XM** | 600 | 7.6 | 175 | 535 | PA66HS | Natural (NA) | 6–10 |
| 111-12449 | **T120L** | 760 | 7.6 | 225 | 535 | PA66HS | Natural (NA) | 6–10 |
| 111-15069 | **T150R(H)** | 365 | 7.6 | 100 | 670 | PA66HS | Natural (NA) | 6–10 |

All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

## Cable Ties for temperatures up to + 105°C (heat stabilised)

- **T-Series in PA66HS black**

Material Data

| | |
|---|---|
| Material | **Polyamide 6.6 Heat Stabilised (PA66HS)** |
| Operating Temperature | **-40 °C to +105 °C Continuous, (+145 °C for 500 h)** |
| Flammability | **UL94 V2** |

Technical Table

| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| Polyamide 6.6 Heat Stabilised | | | | | | | | |
| 111-01950 | **T18R** | 100 | 2.5 | 22.0 | 80 | PA66HS | Black (BK) | 1–3, 5 |
| 111-02358 | **T18I** | 145 | 2.5 | 35.0 | 80 | PA66HS | Black (BK) | 1–3, 5 |
| 111-02049 | **T18L** | 205 | 2.5 | 55.0 | 80 | PA66HS | Black (BK) | 1–3, 5 |
| 111-03050 | **T30R** | 150.0 | 3.5 | 35.0 | 135 | PA66HS | Black (BK) | 1–3, 5 |
| 111-03450 | **T30L** | 190.0 | 3.5 | 50.0 | 135 | PA66HS | Black (BK) | 1–3, 5 |
| 111-03640 | **T30LL** | 290 | 3.5 | 80.0 | 135 | PA66HS | Black (BK) | 1–3, 5 |
| 111-03970 | **T40R** | 175 | 4.0 | 40.0 | 180 | PA66HS | Black (BK) | 1–5 |
| 111-05850 | **T50S** | 150.0 | 4.6 | 35.0 | 225 | PA66HS | Black (BK) | 1–10 |
| 111-04940 | **T50R** | 200.0 | 4.6 | 50.0 | 225 | PA66HS | Black (BK) | 1–10 |
| 117-05250 | **T50I** | 300 | 4.6 | 85.0 | 225 | PA66HS | Black (BK) | 1–10 |
| 111-05450 | **T50L** | 390 | 4.6 | 110 | 225 | PA66HS | Black (BK) | 1–10 |
| 117-08070 | **T80R** | 210.0 | 4.7 | 55.0 | 355 | PA66HS | Black (BK) | 1–10 |
| 111-08250 | **T80I** | 300 | 4.7 | 85.0 | 355 | PA66HS | Black (BK) | 1–10 |
| 111-00388 | **T80L** | 390 | 4.7 | 110 | 355 | PA66HS | Black (BK) | 1–10 |
| 111-12850 | **T120S** | 225 | 7.6 | 55.0 | 535 | PA66HS | Black (BK) | 6–10 |
| 111-12240 | **T120I** | 300 | 7.6 | 80.0 | 535 | PA66HS | Black (BK) | 6–10 |
| 111-12050 | **T120R(E)** | 387 | 7.6 | 100 | 535 | PA66HS | Black (BK) | 6–10 |
| 111-00153 | **T120M** | 460 | 7.6 | 130 | 535 | PA66HS | Black (BK) | 6–10 |
| 111-12700 | **T120XM** | 600 | 7.6 | 175 | 535 | PA66HS | Black (BK) | 6–10 |
| 111-12440 | **T120L** | 760 | 7.6 | 225 | 535 | PA66HS | Black (BK) | 6–10 |
| 111-15050 | **T150R(H)** | 365 | 7.6 | 100 | 670 | PA66HS | Black (BK) | 6–10 |
| 111-15609 | **T150M** | 525 | 8.9 | 150 | 780 | PA66HS | Black (BK) | 6–9 |
| 111-15410 | **T150L** | 820 | 8.8 | 245 | 780 | PA66HS | Black (BK) | 6–9 |
| 111-15510 | **T150XL** | 1095 | 8.9 | 330 | 780 | PA66HS | Black (BK) | 6–9 |

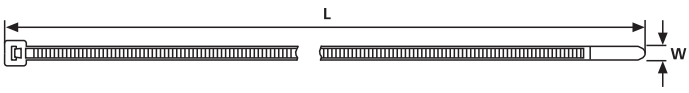
All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

# Cable Ties Inside Serrated

## Cable Ties for higher impact resistant Polyamide 6.6 ScanBlack

- **T-Series in PA66HIR(S)**




*T18S – T255M*

Material Data

| | |
|---|---|
| Material | **kPolyamide 6.6 High Imp. Mod. scan black (PA66HIR(S))** |
| Operating Temperature | **-40 °C to +80 °C Continuous, (+105 °C for 500 h)** |
| Flammability | **UL94 HB** |

Technical Table

| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| Polyamide 6.6 High Imp. Mod. scan black (PA66HIR(S)) | | | | | | | | |
| 111-04890 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA66HIR(S) | Black (BK) | 1–10 |
| 111-00222 | **T50I** | 300 | 4.6 | 85.0 | 225 | PA66HIR(S) | Black (BK) | 1–10 |
| 111-05441 | **T50L** | 390 | 4.6 | 110 | 225 | PA66HIR(S) | Black (BK) | 1–10 |
| 111-12203 | **T120I** | 300 | 7.6 | 80.0 | 535 | PA66HIR(S) | Black (BK) | 6–10 |
| 111-00168 | **T120R(E)** | 387 | 7.6 | 100 | 535 | PA66HIR(S) | Black (BK) | 6–10 |
| 111-12402 | **T120L** | 760 | 7.6 | 225 | 535 | PA66HIR(S) | Black (BK) | 6–10 |

All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

## Cable Ties for higher fire-protection

**• T-Series in PA66V0**

| Material Data | |
|---|---|
| Material | **Polyamide 6.6 V0 (PA66V0)** |
| Operating Temperature | **-40 °C to +85 °C Continuous, (+105 °C for 500 h)** |
| Flammability | **UL94 V0** |

LFH Limited Fire Hazard · RoHS

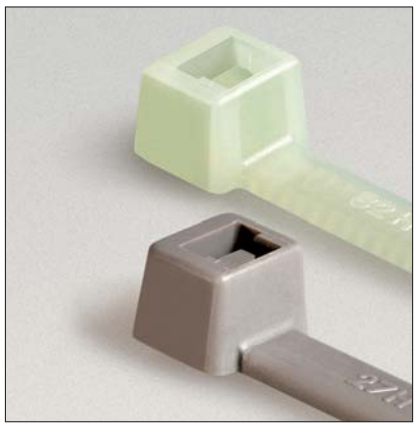
Technical Table

| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| Polyamide 6.6 V0 rated | | | | | | | | |
| 111-91819 | **T18R** | 100 | 2.5 | 22.0 | 80 | PA66V0 | White (WH) | 1–3, 5 |
| 111-02043 | **T18L** | 205 | 2.5 | 55.0 | 80 | PA66V0 | White (WH) | 1–3, 5 |
| 111-93019 | **T30R** | 150 | 3.5 | 35.0 | 135 | PA66V0 | White (WH) | 1–3, 5 |
| 111-00317 | **T50I** | 300 | 4.6 | 85.0 | 225 | PA66V0 | White (WH) | 1–10 |
| 111-95019 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA66V0 | White (WH) | 1–10 |
| 111-91210 | **T120R(E)** | 387 | 7.6 | 100 | 535 | PA66V0 | White (WH) | 6–10 |

All dimensions in mm. Subject to technical changes.

## Cable Ties for temperatures up to + 150°C in Polyamide 4.6

**• T-Series in PA46**



| Material Data | |
|---|---|
| Material | **Polyamide 4.6 (PA46)** |
| Operating Temperature | **-40 °C to +150 °C for 5000 h, (+195 °C for 500 h)** |
| Flammability | **UL94 V2** |

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Technical Table

| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| Polyamide 4.6 High Temp. | | | | | | | | |
| 114-01879 | **T18R** | 100 | 2.5 | 22.0 | 80 | PA46 | Natural (NA) | 1–3, 5 |
| 114-03079 | **T30R** | 150 | 3.5 | 35.0 | 135 | PA46 | Natural (NA) | 1–3, 5 |
| 111-00264 | **T30R** | 150 | 3.5 | 35.0 | 135 | PA46 | Grey (GY) | 1–3, 5 |
| 111-00525 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA46 | Natural (NA) | 1–10 |
| 111-00824 | **T50R** | 200 | 4.6 | 50.0 | 225 | PA46 | Grey (GY) | 1–10 |
| 111-05220 | **T50I** | 300 | 4.6 | 85.0 | 225 | PA46 | Natural (NA) | 1–10 |
| 111-00526 | **T50L** | 390 | 4.6 | 110 | 225 | PA46 | Natural (NA) | 1–10 |
| 114-12179 | **T120R(E)** | 387 | 7.6 | 100 | 535 | PA46 | Natural (NA) | 6–10 |

All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

# Cable Ties Inside Serrated

## Cable Ties for higher chemical resistance for temperatures up to +150°C in Ethylentetrafluorineethylene

• **T-Series in E/TFE**

**For more information on E/TFE sockets please refer to KR-Series on page 169.**

Material Data

| | |
|---|---|
| Material | **Ethylenterafluorineethylen - E/TFE (Tefzel®)** |
| Operating Temperature | **-80 °C to +150 °C continuous** |
| Flammability | **UL94 V0** |

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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 is also using equivalent E/TFE raw material from other suppliers.

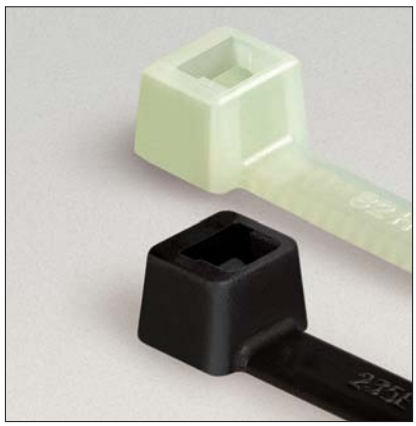
Technical Table

| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| E/TFE (Tefzel®) | | | | | | | | |
| 111-00659 | **T18R** | 100 | 2.5 | 22.0 | 80 | E/TFE | Blue (BU) | 1–3, 5 |
| 111-00698 | **T30R** | 150 | 3.5 | 36.0 | 133.3 | E/TFE | Blue (BU) | 1–3, 5 |
| 111-00732 | **T50R** | 201 | 4.7 | 50.0 | 222.3 | E/TFE | Blue (BU) | 1–10 |
| 111-00718 | **T50L** | 382 | 4.7 | 105 | 222.3 | E/TFE | Blue (BU) | 1–10 |
| 111-01125 | **T120R** | 387 | 7.4 | 105 | 535 | E/TFE | Blue (BU) | 6–10 |

All dimensions in mm. Subject to technical changes.

## Cable Ties for higher chemical resistance for temperatures up to +85°C in Polypropylene

• **T-Series in PP**



Material Data

| | |
|---|---|
| Material | **Polypropylene (PP)** |
| Operating Temperature | **-40 °C to +85 °C Continuous, (+105 °C for 500 h)** |
| Flammability | **UL94 HB** |

HF halogenfree

RoHS

Technical Table

| Article-No. | Type | Length (L) | Width (W) | Bundle Ø max. | Min. Tensile Strength (N) | Material | Colour | Application Tool |
|---|---|---|---|---|---|---|---|---|
| Polypropylene (PP) | | | | | | | | |
| 111-01917 | **T18R** | 100 | 2.5 | 19.0 | 49 | PP | Black (BK) | 1–3, 5 |
| 111-01922 | **T18R** | 100 | 2.5 | 19.0 | 49 | PP | Natural (NA) | 1–3, 5 |
| 111-03017 | **T30R** | 148 | 3.6 | 32.0 | 89 | PP | Natural (NA) | 1–3, 5 |
| 111-04928 | **T50R** | 200 | 4.6 | 50.0 | 110 | PP | Black (BK) | 1–10 |
| 111-04931 | **T50R** | 200 | 4.6 | 50.0 | 110 | PP | Natural (NA) | 1–10 |
| 111-12827 | **T120S** | 225 | 7.6 | 55.0 | 267 | PP | Black (BK) | 6–10 |
| 111-12066 | **T120R** | 387 | 7.6 | 100 | 267 | PP | Black (BK) | 6–10 |

All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.