

## For detailed Information on Heatshrink Tools

please refer to chapter  
application tools **page 0000.**

### Adhesives for moulded parts

The newly developed W24 epoxide resin adhesive can be used in the temperature range from  $-75^{\circ}\text{C}$  to  $+200^{\circ}\text{C}$ . The moulded parts are factory-coated with W24 adhesive. In combination with the material G, i.e. as GW24, the adhesive has approval to VG 95343, Part 18 and Part 19.

The V9500 two-component adhesive with approval to VG 95343 Part 15 can be supplied in 50g cartridges for the practical P9500 dispensing guns (see page 203).

Lining with hot melt and epoxy adhesive for our range of materials on request.  
The LFH material H is lined with W21 (LFH) hot melt adhesive.

#### Material specifications

| Description                                | G*                                              | B7                                                                                    | H                                                    | L                                               | -9                                              |
|--------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| <b>Material</b>                            | Polyester elastomer cross-linked (PEEX)         | Polyolefin, Chemically cross linked (POX)                                             | Polyolefin, Cross-linked (POX)                       |                                                 |                                                 |
| <b>Colour</b>                              | Black (BK)                                      | Black (BK)                                                                            | Black (BK)                                           | Black (BK)                                      | Black                                           |
| <b>Minimum Shrink Temperature (Metric)</b> | $+135^{\circ}\text{C}$                          | $+135^{\circ}\text{C}$                                                                | $+135^{\circ}\text{C}$                               | $+135^{\circ}\text{C}$                          | $+100^{\circ}\text{C}$                          |
| <b>Operating Temperature</b>               | $-75^{\circ}\text{C}$ to $+150^{\circ}\text{C}$ | $-55^{\circ}\text{C}$ to $+135^{\circ}\text{C}$ , Intermittent $+225^{\circ}\text{C}$ | $-55^{\circ}\text{C}$ to $+105^{\circ}\text{C}$      | $-55^{\circ}\text{C}$ to $+200^{\circ}\text{C}$ | $-55^{\circ}\text{C}$ to $+120^{\circ}\text{C}$ |
| <b>Dielectric Strength (metric)</b>        | 14kV/mm according to ASTM D2671                 | 16 kV/mm                                                                              | 15 kV/mm                                             | 9 kV/mm to ASTM D2671                           | 20 kV/mm to ASTM D2671                          |
| <b>Flexibility</b>                         | Semi rigid                                      | Semi rigid                                                                            | Flexible                                             | Flexible                                        | Flexible                                        |
| <b>Flammability</b>                        | VG 95343                                        | ASTM D635                                                                             | VG 95343                                             | ASTM D635                                       | ASTM D635                                       |
| <b>Specification</b>                       | VG 95343 Part 6, 7, 8, 9 DEF STAN 59-97 / 3     | MIL-I-81765/1 Type 1 DEF STAN 59-97 / 3                                               | VG 95343 part 29, 30 NAVSEA 5617649 DEF STAN 59-97/3 | DEF STAN 59-97/3 MIL-I-81765/4                  | SCX15112                                        |

\* standard material



### Helashrink 100 Series

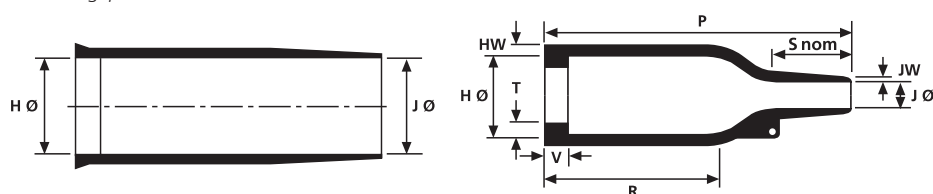
Straight plug-and-socket connector terminal casing. This style is used in conjunction with circular grooved adaptor, providing protection against environmental stresses. The inside lip has been designed to provide extra reinforced stress relief. Special fitting 199-4-G for audio plugs has external ribs for an improved grip.



Recovered 199-4-G, VG style shape for small audio connectors with external ribs for improved grip.



150 series boot recovered on to connector.



Technical Table

| Article-No. | Type            | H<br>min<br>a | H<br>max<br>b | J<br>a | J<br>b | P ±<br>10% | R ±<br>10% | S ±<br>10% | S<br>nom | HW ±<br>20% | JW ±<br>20% | V ±<br>10% | T ±<br>10% | T ±<br>20% |
|-------------|-----------------|---------------|---------------|--------|--------|------------|------------|------------|----------|-------------|-------------|------------|------------|------------|
| 401-13180   | <b>113-1-G</b>  | 10.7          | 7.9           | 4.6    | 2.0    | 25.4       | 14.5       | 4.6        | —        | 1.3         | 1.0         | —          | —          | 1.0        |
| 401-13480   | <b>113-4-G</b>  | 10.7          | 7.9           | 4.6    | 2.0    | 25.4       | 14.5       | 4.6        | 4.6      | 1.3         | 1.0         | 3.0        | —          | 1.0        |
| 401-52041   | <b>152-41-G</b> | 24.0          | 10.5          | 24.0   | 6.0    | 26.0       | 9.0        | —          | 10.0     | 1.6         | 0.5         | 3.0        | —          | 1.0        |
| 401-52043   | <b>152-42-G</b> | 24.0          | 10.5          | 24.0   | 6.0    | 38.0       | 21.0       | —          | 10.0     | 1.6         | 0.5         | 3.0        | —          | 1.0        |
| 401-53024   | <b>153-41-G</b> | 25.0          | 14.0          | 9.0    | 3.5    | 40.0       | 13         | —          | 16.0     | 1.8         | 0.5         | 3.0        | —          | 1.0        |
| 401-53028   | <b>153-42-G</b> | 25.0          | 14.0          | 9.0    | 3.5    | 55.0       | 28         | —          | 16.0     | 1.8         | 0.5         | 3.0        | —          | 1.0        |
| 401-54043   | <b>154-41-G</b> | 30.0          | 14.0          | 30.0   | 6.0    | 43.0       | 20         | —          | 1.0      | 1.8         | 1.0         | 3.0        | —          | 1.0        |
| 401-54045   | <b>154-42-G</b> | 30.0          | 14.0          | 30.0   | 6.0    | 55.0       | 32.0       | —          | 13.0     | 1.8         | 1.0         | 3.0        | —          | 1.0        |
| 401-55041   | <b>155-41-G</b> | 31.0          | 18.0          | 31.0   | 7.0    | 47.0       | 15.0       | —          | 18.0     | 1.8         | 1.0         | 3.0        | —          | 1.0        |
| 401-55043   | <b>155-42-G</b> | 31.0          | 10.5          | 31.0   | 7.0    | 67.0       | 35.0       | —          | 18.0     | 1.8         | 1.0         | 3.0        | —          | 1.0        |
| 401-56042   | <b>156-41-G</b> | 36.0          | 22.5          | 36.0   | 8.5    | 60.0       | 22.0       | —          | 20.0     | 2.0         | 1.0         | 3.0        | —          | 1.0        |
| 401-56045   | <b>156-42-G</b> | 36.0          | 22.5          | 36.0   | 8.5    | 80.0       | 42.0       | —          | 20.0     | 2.0         | 1.0         | 3.0        | —          | 1.0        |
| 401-57055   | <b>157-41-G</b> | 43.0          | 28.0          | 43.0   | 10.0   | 60.0       | 21.0       | —          | 20.0     | 2.2         | 1.0         | 3.0        | —          | 1.7        |
| 401-57057   | <b>157-42-G</b> | 43.0          | 28.0          | 43.0   | 10.0   | 79.0       | 41.0       | —          | 20.0     | 2.2         | 1.0         | 3.0        | —          | 1.7        |
| 401-57059   | <b>157-43-G</b> | 43.0          | 28.0          | 43.0   | 10.0   | 99.0       | 61.0       | —          | 20.0     | 2.2         | 1.0         | 3.0        | —          | 1.7        |
| 401-58033   | <b>158-41-G</b> | 60.0          | 35.0          | 60.0   | 16.0   | 90.0       | 32.0       | —          | 38.0     | 3.2         | 1.5         | 3.0        | —          | 1.7        |
| 401-58034   | <b>158-42-G</b> | 60.0          | 35.0          | 60.0   | 16.0   | 110.0      | 52.0       | —          | 38.0     | 3.2         | 1.5         | 3.0        | —          | 1.7        |
| 401-58035   | <b>158-43-G</b> | 60.0          | 35.0          | 60.0   | 16.0   | 130.0      | 72.0       | —          | 38.0     | 3.2         | 1.5         | 3.0        | —          | 1.7        |
| 401-59021   | <b>159-41-G</b> | 66.0          | 45.0          | 66.0   | 17.0   | 130.0      | 50.0       | —          | 50.0     | 3.8         | 2.0         | 3.0        | —          | 2.0        |
| 401-59022   | <b>159-42-G</b> | 66.0          | 45.0          | 66.0   | 17.0   | 150.0      | 70.0       | —          | 50.0     | 3.8         | 2.0         | 3.0        | —          | 2.0        |
| 401-59023   | <b>159-43-G</b> | 66.0          | 45.0          | 66.0   | 17.0   | 171.0      | 90.0       | —          | 50.0     | 3.8         | 2.0         | 3.0        | —          | 2.0        |
| 401-60004   | <b>160-41-G</b> | 82.0          | 58.0          | 82.0   | 27.0   | 137.0      | 37.0       | —          | 62.0     | 3.8         | 3.8         | 3.0        | —          | 2.0        |
| 401-60005   | <b>160-42-G</b> | 82.0          | 58.0          | 82.0   | 27.0   | 158.0      | 58.0       | —          | 62.0     | 3.8         | 3.8         | 3.0        | —          | 2.0        |
| 401-60006   | <b>160-43-G</b> | 82.0          | 58.0          | 82.0   | 27.0   | 213.0      | 113.0      | —          | 62.0     | 3.8         | 3.8         | 3.0        | —          | 2.0        |
| 401-99003   | <b>199-4-G</b>  | 17.5          | 14.0          | 7.0    | 4.3    | 70.0       | 35.0       | —          | 20.0     | 1.8         | 0.5         | 1.5        | —          | 1.0        |

All Dimensions in mm. Subject to technical changes.

These moulded shapes are also available in various materials from our range, eg, B7, H, L and J on request.

In addition, the moulded shapes can also be supplied with an inner coating from our range of hot-melt and epoxy adhesives, eg, W24, W1, W8 and WM250.

a As supplied  
b Recovered