

- Rated to 240°C + Class C
- Excellent low temperature flexibility
- UL Recognized Component for sizes up to 3/4"
- Available in AWG sizes #24 through 3/4" I.D
- VW-1 sizes up to 3/4"
- Applicable Documents  
ASTM D-350  
ASTM D-372  
UL 1441  
NEMA TF-1



## Heat Treated Fiberglass Sleeving (Unsaturated)

Ben-Har™ ST is a braided, heat treated fiberglass sleeving made of continuous filament E glass. Heat treated fiberglass sleeveings were pioneered to provide the fray resistance necessary in most assembly operations. The heat treatment burns off any low temperature contaminants, insures purity and low off gas content and promotes bonding or saturating where desired.

Ben-Har™ ST sleeving is a UL Recognized Component meeting VW-1 flammability requirements. It is completely unsaturated and provides the greatest possible flexibility with the absolute minimum organic content. Its fray resistance makes practical the use of short lengths and the roundness of the sleeving greatly facilitates wire insertion. The special heat treatment of the fiberglass braid prepares the sleeving for bonding with epoxies, impregnants and varnishes resulting in a superior reinforcement between the fiberglass and the encapsulant or varnish.

Ben-Har™ ST is not affected by temperatures up to 240°C, and can withstand higher temperatures up to the melting point of glass (760°C.) The sleeving withstands normal assembly handling, cut-through, and mechanical stress without the loss of insulating capability, however performance is determined by wall thickness (about 1/64".) Ben-Har™ ST shows no effect when exposed to 10 megarads of radiation. It has a nominal outgassing of 0.25% by weight after four hours at 250°C



# Product Specifications – Ben-Har™ ST

| NEM A Size | Nominal Diameter (inches) | Nominal Diameter (mm) | Bentley-Harris Part Number | Maximum Diameter (inches) | Minimum Diameter (inches) |
|------------|---------------------------|-----------------------|----------------------------|---------------------------|---------------------------|
| 24         | 0.022                     | 0.56                  | 3700792401                 | 0.027                     | 0.020                     |
| 22         | 0.027                     | 0.69                  | 3700792201                 | 0.032                     | 0.025                     |
| 20         | 0.034                     | 0.86                  | 3700792001                 | 0.039                     | 0.032                     |
| 19         | 0.038                     | 0.96                  | 3700791901                 | 0.044                     | 0.036                     |
| 18         | 0.042                     | 1.07                  | 3700791801                 | 0.049                     | 0.040                     |
| 17         | 0.047                     | 1.19                  | 3700791701                 | 0.055                     | 0.045                     |
| 16         | 0.053                     | 1.35                  | 3700791601                 | 0.061                     | 0.051                     |
| 15         | 0.059                     | 1.50                  | 3700791501                 | 0.066                     | 0.057                     |
| 14         | 0.074                     | 1.88                  | 3700791401                 | 0.072                     | 0.064                     |
| 13         | 0.076                     | 1.93                  | 3700791301                 | 0.080                     | 0.072                     |
| 12         | 0.091                     | 2.31                  | 3700791201                 | 0.089                     | 0.081                     |
| 11         | 0.095                     | 2.41                  | 3700791101                 | 0.101                     | 0.091                     |
| 10         | 0.106                     | 2.69                  | 3700791001                 | 0.112                     | 0.102                     |
| 9          | 0.118                     | 3.00                  | 3700790901                 | 0.124                     | 0.114                     |
| 8          | 0.133                     | 3.38                  | 3700790801                 | 0.141                     | 0.129                     |
| 7          | 0.148                     | 3.76                  | 3700790701                 | 0.158                     | 0.144                     |
| 6          | 0.166                     | 4.22                  | 3700790601                 | 0.178                     | 0.162                     |
| 5          | 0.186                     | 4.72                  | 3700790501                 | 0.198                     | 0.182                     |
| 4          | 0.208                     | 5.28                  | 3700790401                 | 0.224                     | 0.204                     |
| 3          | 0.234                     | 5.94                  | 3700790301                 | 0.249                     | 0.229                     |
| 2          | 0.263                     | 6.68                  | 3700790201                 | 0.278                     | 0.258                     |
| 1          | 0.294                     | 7.47                  | 3700790101                 | 0.311                     | 0.289                     |
| 0          | 0.330                     | 8.38                  | 3700790001                 | 0.347                     | 0.325                     |
| 3/8"       | 0.375                     | 9.52                  | 3700701001                 | 0.399                     | 0.375                     |
| 7/16"      | 0.438                     | 11.12                 | 3700701101                 | 0.462                     | 0.438                     |
| 1/2"       | 0.500                     | 12.70                 | 3700701301                 | 0.524                     | 0.500                     |
| 5/8"       | 0.625                     | 15.87                 | 3700701601                 | 0.655                     | .0625                     |
| 3/4"       | 0.750                     | 19.05                 | 3700701901                 | 0.786                     | 0.750                     |

| °C  | °F   |
|-----|------|
| 538 | 1000 |
| 527 | 980  |
| 516 | 960  |
| 504 | 940  |
| 493 | 920  |
| 482 | 900  |
| 471 | 880  |
| 460 | 860  |
| 449 | 840  |
| 438 | 820  |
| 427 | 800  |
| 416 | 780  |
| 404 | 760  |
| 393 | 740  |
| 382 | 720  |
| 371 | 700  |
| 360 | 680  |
| 349 | 660  |
| 338 | 640  |
| 327 | 620  |
| 316 | 600  |
| 304 | 580  |
| 293 | 560  |
| 282 | 540  |
| 271 | 520  |
| 260 | 500  |
| 249 | 480  |
| 238 | 460  |
| 227 | 440  |
| 216 | 420  |
| 204 | 400  |
| 193 | 380  |
| 182 | 360  |
| 171 | 340  |
| 160 | 320  |
| 149 | 300  |
| 138 | 280  |
| 127 | 260  |
| 116 | 240  |
| 104 | 220  |
| 99  | 210  |
| 88  | 190  |
| 77  | 170  |
| 66  | 150  |
| 54  | 130  |
| 43  | 110  |
| 38  | 100  |
| 35  | 95   |
| 30  | 86   |
| 25  | 77   |
| 20  | 68   |
| 15  | 59   |
| 10  | 50   |
| 5   | 41   |
| 0   | 32   |
| -5  | 23   |
| -10 | 14   |
| -15 | 5    |
| -18 | 0    |
| -20 | -4   |
| -40 | -40  |
| -60 | -76  |
| -70 | -94  |

\* UL Recognized Component for sizes up to 3/4"