# SUMITUBE ® B2 (AS23053/5A Class 1 & 3)

FLEXIBLE POLYOLEFIN HEAT SHRINK TUBING, 2:1 SHRINK RATIO

## PRODUCT FEATURES;

- MEETS ALL MATERIAL AND FUNCTIONAL REQUIREMENTS OF AS23053/5A CLASSES 1 AND 3
- UL & CSA; NAVAIR QPL LISTED
- ROHS / ROHS2 / ROHS3 COMPLIANT
- VERY FLEXIBLE, FLAME-RETARDED, RADIATION-CROSSLINKED
- BLACK IS UV RESISTANT PER DIN EN ISO 4892-2A
- SHRINK TEMPERATURE : 90 °C
- OPERATING TEMPERATURE RANGE: -55 °C TO +135 °C AND UP TO 200 °C FOR SHORT TIME DURATIONS.

## BASIC PROPERTIES

- MATERIAL : FLEXIBLE POLYOLEFIN
- SHRINK RATIO : 2:1
- COLOR : BLACK, WHITE, RED, YELLOW, BLUE, GREEN, VIOLET, GRAY, ORANGE (OTHER COLORS SUBJECT TO FACTORY APPROVAL AND QUOTE)
- APPLICATIONS : GENERAL PURPOSE WIRE MARKING, COLOR CODING AND ELECTRICAL INSULATION OF LIGHT WIRE HARNESS ASSEMBLIES
- FOR HIGHER EXPANSION RATIO VERSIONS SEE B2(3X), B2(4X) AND B2(4XC) DATA SHEETS

**PROPERTIES :**

| NOMINALSIZE | As Supplied | | After Recovery | | | |
|---|---|---|---|---|---|---|
| | Inside Diameter As Supplied(Minimum) | | Inside Diameter After Recovery(Maximum) | | Wall Thickness After Recovery(Nominal) | |
| | Inch | (MM) | Inch | (MM) | Inch | (MM) |
| 3/64 | .046 | 1.2 | .023 | 0.6 | .016 | 0.40 |
| 1/16 | .063 | 1.6 | .031 | 0.8 | .017 | 0.43 |
| 3/32 | .093 | 2.4 | .046 | 1.2 | .020 | 0.51 |
| 1/8 | .125 | 3.2 | .062 | 1.6 | .020 | 0.51 |
| 3/16 | .187 | 4.8 | .093 | 2.4 | .020 | 0.51 |
| 1/4 | .250 | 6.4 | .125 | 3.2 | .025 | 0.64 |
| 3/8 | .375 | 9.5 | .187 | 4.8 | .025 | 0.64 |
| 1/2 | .500 | 12.7 | .250 | 6.4 | .025 | 0.64 |
| 5/8* | .625 | 15.9 | .313 | 7.9 | .027 | 0.69 |
| 3/4 | .750 | 19.1 | .375 | 9.5 | .030 | 0.76 |
| 1 | 1.000 | 25.4 | .500 | 12.7 | .035 | 0.89 |
| 1 1/4* | 1.250 | 31.8 | .625 | 15.9 | .038 | 0.97 |
| 1 1/2 | 1.500 | 38.1 | .750 | 19.1 | .040 | 1.02 |
| 2** | 2.000 | 50.8 | 1.000 | 25.4 | .045 | 1.14 |
| 3** | 3.000 | 76.2 | 1.500 | 38.1 | .050 | 1.27 |
| 4** | 4.000 | 101.6 | 2.000 | 50.8 | .055 | 1.40 |

* These sizes do not meet SAE dimensional requirements (sizes not listed in spec size tables)
** These sizes do not meet /5, Class 3 (sizes not listed in Class 3 size table)

SUMITOMO ELECTRIC GROUP

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## PERFORMANCES

| PROPERTIES | ITEMS | REQUIREMENTS | TEST METHOD |
|---|---|---|---|
| **PHYSICAL** | Tensile strength (psi) | 1500 min. | ASTM D638 |
| | Elongation (%) | 200 min. | ASTM D638 |
| | Specific gravity | 1.35 max. | ASTM D792 |
| | Low temperature flex (-55 °C) | No cracking | AS23053 |
| | Heat shock (250 °C, 4 hrs.) | No cracking | AS23053 |
| | Heat resistance (175 °C, 168 hrs.): Elongation (%) | 100 min. | ASTM D638 |
| | Secant modulus (psi) | $2.5 \times 10^4$ max. | ASTM D882 |
| | Longitudinal change (%) | ±5 | AS23053 |
| **ELECTRICAL** | Dielectric strength (volts/mil) | 500 min. | ASTM D876 |
| | Volume resistivity (ohm-cm) | $1.0 \times 10^{14}$ min. | ASTM D876 |
| **CHEMICAL** | Corrosion (175 °C, 16 hrs.) | No corrosion | AS23053 |
| | Water absorption (%) | 0.5 max. | ASTM D570 |
| | Fluid resistance (23 °C, 24 hrs.): Tensile strength (psi) | 1000 min. | AS23053 |
| | Flammability | Pass | UL 224 VW-1 |
| | Shrink temperature, nominal | 90 °C | |

**Specification references:** AS23053/5 Class 1 & 3
UL 224 125 °C, 600 V, VW-1 File E48762 YDPU2
CSA C22.2 No. 198.1-98 File LR33298

## ORDERING INFORMATION

| | | | | |
|---|---|---|---|---|
| COLOR | BLACK, WHITE, RED, YELLOW, BLUE, GREEN, VIOLET, GRAY, ORANGE (OTHER COLORS SUBJECT TO FACTORY APPROVAL AND QUOTE) | | | |
| PACKAGING | SPOOLED (S) OR 4 FOOT LENGTHS (4') | | | |
| HOW TO ORDER | (Type of material) | (Size) | (Color) | (Packaging) |
| ORDERING EXAMPLE: | B2 | 1/4 | Black | 4' |

**SUMITOMO ELECTRIC INTERCONNECT PRODUCTS, INC.**

**915 ARMORLITE DR. SAN MARCOS, CA 92069**

**760-761-0600** **info@SEIPUSA.COM**

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**DIMENSIONS ARE SHOWN FOR REFERENCE PURPOSES AND SUBJECT TO CHANGE WITHOUT NOTICE.**

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