# AACSR / AACSR-AW Conductor

## Aluminium Alloy Conductor Steel Reinforced

### Product Overview

AACSR (Aluminium Alloy Conductor Steel Reinforced) is a high-strength bare overhead conductor designed for power transmission and distribution lines requiring excellent mechanical strength and reliable electrical performance.

It consists of concentric layers of high-strength aluminum alloy wires stranded around a reinforced steel core. The aluminum alloy strands, typically made from 6201-T81, provide electrical conductivity and mechanical strength, while the steel core delivers additional tensile strength for demanding overhead line conditions.

Compared with conventional ACSR conductors, AACSR uses high-strength aluminum alloy wires instead of standard electrical-grade aluminum wires. This construction provides a favorable strength-to-weight ratio and makes AACSR suitable for long-span transmission lines, river crossings, mountainous terrain and other applications requiring increased mechanical strength.

QZ Cable manufactures AACSR conductors in different sizes, stranding configurations and steel core options to meet international standards and project specifications.

### Construction of AACSR Conductor

AACSR is a concentric-lay stranded conductor consisting of one or more layers of aluminum alloy wires stranded around a high-strength coated steel core.

Aluminum Alloy Strands

The conductive and reinforcing layers are typically manufactured from high-strength Aluminum Alloy 6201-T81 wires. Alloy 1120 may also be considered for specific designs where supported by the applicable material and conductor specifications.

Steel Reinforcing Core

The central core consists of one or more high-strength coated steel wires. The steel core provides the mechanical reinforcement required for high tensile loads and long-span overhead applications.

Flexible Conductor Design

The proportions of aluminum alloy and steel can be adjusted to achieve the required balance between electrical capacity and mechanical strength.

The core can be supplied with different protective coatings, including:

Class A galvanized steel.


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Class B galvanized steel.

Class C galvanized steel.

Aluminum-coated steel (AZ).

Aluminum-clad steel (AW).

## AACSR and AACSR/AW Conductor Types

### 1. AACSR – Aluminium Alloy Conductor Steel Reinforced

AACSR uses high-strength aluminum alloy strands surrounding a coated steel reinforcing core.

Key characteristics:

High mechanical strength.

Favorable strength-to-weight ratio.

Reliable electrical conductivity.

Different steel core coating options.

Suitable for long-span overhead transmission and distribution lines.

### 2. AACSR/AW – Aluminium Alloy Conductor Aluminum-Clad Steel Reinforced

AACSR/AW is a special AACSR construction using aluminum-clad steel wires as the reinforcing core instead of conventional galvanized steel wires.

The aluminum cladding provides improved corrosion resistance and a compatible aluminum surface in contact with aluminum alloy strands.

**Key characteristics:**

Improved corrosion resistance compared with conventional galvanized steel core constructions.

High mechanical strength.

Aluminum-clad steel core construction.

Suitable for coastal, industrial and other corrosive environments.

Compatible with specific overhead conductor and OPGW designs.

## Key Features and Advantages



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High Mechanical Strength

The combination of high-strength aluminum alloy strands and a steel reinforcing core provides excellent tensile performance for overhead lines with demanding mechanical requirements.

Excellent Strength-to-Weight Ratio

AACSR combines lightweight aluminum alloy strands with a high-strength steel core, providing a favorable balance between conductor weight and mechanical strength.

Reliable Electrical Performance

The aluminum alloy strands provide electrical conductivity while contributing to the conductor's overall mechanical strength. The conductor design can be customized according to the required current-carrying capacity.

Long-Span Capability

AACSR is suitable for long-span applications, including river crossings, valley crossings and mountainous transmission routes, where high tensile strength is important.

Flexible Corrosion Protection

Different steel core coatings can be selected according to environmental conditions. Additional grease protection can also be considered where required by the conductor specification.

## Applications of AACSR Conductors

AACSR and AACSR/AW conductors are commonly used in:

- Overhead power transmission lines.
- Primary and secondary distribution networks.
- Long-span river and valley crossings.
- Mountainous and difficult-terrain transmission routes.
- High-wind regions requiring high mechanical strength.
- Coastal and industrial environments.
- Utility grid expansion and reinforcement.
- Overhead messenger and support applications where specified.

## Standards


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QZ Cable can manufacture AACSR conductors according to applicable international standards and customer requirements.

Main Conductor Standards

IEC 61089 – Round Wire Concentric Lay Overhead Electrical Stranded Conductors.

ASTM B711 – Concentric-Lay-Stranded Aluminum-Alloy Conductors, Steel Reinforced.

AS 3607 – Conductors – Bare Overhead – Aluminium and Aluminium Alloy, Steel Reinforced.

Related Material Standards

ASTM B398 – Aluminum-Alloy 6201-T81 Wire for Electrical Purposes.

IEC 61232 – Aluminum-Clad Steel Wires for Electrical Purposes.

Note: The applicable standard and edition should be confirmed according to the aluminum alloy grade, steel core coating and conductor construction. ASTM B711 compliance should be checked against the exact product design before publication.

## Technical Specifications

### IEC 61089



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| Code Number | Area | | | Number of Wires | | Wire Dia. | | Diameter | | Linear Mass | A1/S1 A Conductor | A1/S2 A Conductor | A1/S3 A Conductor | Max.D.C. Resistance at 20°C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Alum. | Steel | Total | Al. | St. | Alum. | Steel | Core | Cond. | Rated Strength | Rated Strength | Rated Strength | | |
| mm² | mm² | mm² | mm² | | | mm | mm | mm | mm | kg/km | kN | | | Ω/km |
| 16 | 16 | 2.67 | 18.7 | 6 | 1 | 1.84 | 1.84 | 1.64 | 5.53 | 64.6 | 6.08 | 6.45 | 6.83 | 1.7934 |
| 25 | 25 | 4.17 | 29.2 | 6 | 1 | 2.3 | 2.3 | 2.3 | 6.91 | 100.9 | 9.13 | 9.71 | 10.25 | 1.1478 |
| 40 | 40 | 6.67 | 46.7 | 6 | 1 | 2.91 | 2.91 | 2.91 | 8.74 | 161.5 | 14.4 | 15.33 | 16.2 | 0.7174 |
| 63 | 63 | 10.5 | 73.5 | 6 | 1 | 3.66 | 3.66 | 3.66 | 11 | 254.4 | 21.63 | 22.37 | 24.15 | 0.4555 |
| 100 | 100 | 16.7 | 117 | 6 | 1 | 4.61 | 4.61 | 4.61 | 13.8 | 403.8 | 34.33 | 35.5 | 38.33 | 0.2869 |
| 125 | 125 | 6.94 | 132 | 18 | 1 | 2.97 | 2.97 | 2.97 | 14.9 | 397.9 | 29.17 | 30.14 | 31.04 | 0.2304 |
| 125 | 125 | 20.4 | 145 | 26 | 7 | 2.47 | 1.92 | 5.77 | 15.7 | 503.9 | 45.69 | 48.54 | 51.39 | 0.231 |
| 160 | 160 | 8.89 | 169 | 18 | 1 | 3.36 | 3.36 | 3.36 | 16.8 | 509.3 | 36.18 | 37.42 | 38.67 | 0.18 |
| 160 | 160 | 26.1 | 186 | 26 | 7 | 2.8 | 2.18 | 6.53 | 17.7 | 644.9 | 57.69 | 61.34 | 64.99 | 0.1805 |
| 200 | 200 | 11.1 | 211 | 18 | 1 | 3.76 | 3.76 | 3.76 | 18.8 | 636.7 | 44.22 | 45 | 46.89 | 0.144 |
| 200 | 200 | 32.6 | 233 | 26 | 7 | 3.13 | 2.43 | 7.3 | 19.8 | 806.2 | 70.13 | 74.69 | 78.93 | 0.1444 |
| 250 | 250 | 24.6 | 275 | 22 | 7 | 3.8 | 2.11 | 6.34 | 21.6 | 880.6 | 68.72 | 72.16 | 75.6 | 0.1154 |
| 250 | 250 | 40.7 | 291 | 26 | 7 | 3.5 | 2.72 | 8.16 | 22.2 | 1007.7 | 87.67 | 93.37 | 98.66 | 0.1155 |
| 315 | 315 | 21.8 | 337 | 45 | 7 | 2.99 | 1.99 | 5.97 | 23.9 | 1039.3 | 79.03 | 82.08 | 85.13 | 0.0917 |
| 315 | 315 | 51.3 | 366 | 26 | 7 | 3.93 | 3.05 | 9.16 | 24.9 | 1269.7 | 106.83 | 114.02 | 121.2 | 0.0917 |
| 400 | 400 | 27.7 | 428 | 45 | 7 | 3.36 | 2.24 | 6.73 | 26.9 | 1320.1 | 98.36 | 102.23 | 106.1 | 0.0722 |
| 400 | 400 | 51.9 | 452 | 54 | 7 | 3.07 | 3.07 | 9.21 | 27.6 | 1510.3 | 123.04 | 130.3 | 137.56 | 0.0723 |
| 450 | 450 | 31.1 | 481 | 45 | 7 | 3.57 | 2.38 | 7.14 | 28.5 | 1485.2 | 107.47 | 111.82 | 115.87 | 0.0642 |
| 450 | 450 | 58.3 | 508 | 54 | 7 | 3.26 | 3.26 | 9.77 | 29.3 | 1699.1 | 138.42 | 146.58 | 154.75 | 0.0643 |
| 500 | 500 | 34.6 | 535 | 45 | 7 | 3.76 | 2.51 | 7.52 | 30.1 | 1650.2 | 199.41 | 124.25 | 128.74 | 0.0578 |
| 500 | 500 | 64.8 | 565 | 54 | 7 | 3.43 | 3.43 | 10.3 | 30.9 | 1887.9 | 153.8 | 162.87 | 171.94 | 0.0578 |
| 560 | 560 | 38.7 | 599 | 45 | 7 | 3.98 | 2.65 | 7.96 | 31.8 | 1848.2 | 133.74 | 139.16 | 144.19 | 0.0516 |
| 560 | 560 | 70.9 | 631 | 54 | 19 | 3.63 | 2.18 | 10.9 | 32.7 | 2103.4 | 172.59 | 182.52 | 192.45 | 0.0516 |
| 630 | 630 | 43.6 | 674 | 45 | 7 | 4.22 | 2.81 | 8.44 | 33.8 | 2079.2 | 150.45 | 156.55 | 162.21 | 0.0459 |



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| Code Number | Area | | | Number of Wires | | Wire Dia. | | Diameter | | Linear Mass | A1/S1 A Conductor | A1/S2 A Conductor | A1/S3 A Conductor | Max.D.C. Resistance at 20°C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Alum. | Steel | Total | Al. | St. | Alum. | Steel | Core | Cond. | Rated Strength | Rated Strength | Rated Strength | | |
| mm² | mm² | mm² | mm² | | | mm | mm | mm | mm | kg/km | kN | | | Ω/km |
| 630 | 630 | 79.8 | 710 | 54 | 19 | 3.85 | 2.31 | 11.6 | 34.7 | 2366.3 | 191.77 | 202.94 | 213.31 | 0.0459 |
| 710 | 710 | 49.1 | 759 | 45 | 7 | 4.48 | 2.99 | 8.96 | 35.9 | 2343.2 | 169.56 | 176.43 | 182.81 | 0.0407 |
| 710 | 710 | 89.9 | 800 | 54 | 19 | 4.09 | 2.45 | 12.3 | 36.8 | 2666.8 | 216.12 | 228.71 | 240.41 | 0.0407 |
| 800 | 800 | 34.6 | 835 | 72 | 7 | 3.76 | 2.51 | 7.52 | 37.6 | 2480.2 | 167.41 | 172.25 | 176.74 | 0.0361 |
| 800 | 800 | 66.7 | 867 | 84 | 7 | 3.48 | 3.48 | 10.4 | 38.3 | 2732.7 | 205.33 | 214.67 | 224 | 0.0362 |
| 800 | 800 | 101 | 901 | 54 | 19 | 4.44 | 2.61 | 13 | 39.1 | 3004.9 | 243.52 | 257.71 | 270.88 | 0.0362 |
| 900 | 900 | 38.9 | 939 | 72 | 7 | 3.99 | 2.66 | 7.98 | 39.9 | 2790.2 | 188.33 | 193.78 | 198.83 | 0.0321 |
| 900 | 900 | 75 | 975 | 84 | 7 | 3.69 | 3.69 | 11.1 | 40.6 | 3074.2 | 226.5 | 231.75 | 244.5 | 0.0322 |
| 1000 | 1000 | 43.2 | 1043 | 72 | 7 | 4.21 | 2.8 | 8.41 | 42.1 | 3100.3 | 209.26 | 215.31 | 220.93 | 0.0289 |
| 1120 | 1120 | 47.3 | 1167 | 72 | 19 | 4.45 | 1.78 | 8.9 | 44.5 | 3464.9 | 234.53 | 241.15 | 247.77 | 0.0258 |
| 1120 | 1120 | 91.2 | 1211 | 84 | 19 | 4.12 | 2.47 | 12.4 | 45.3 | 3811.5 | 283.17 | 295.94 | 307.79 | 0.0258 |
| 1250 | 1250 | 102 | 1352 | 84 | 19 | 4.35 | 2.61 | 13.1 | 47.9 | 4253.9 | 316.04 | 269.14 | 276.53 | 0.0232 |
| 1250 | 1250 | 52.8 | 1303 | 72 | 19 | 4.7 | 1.88 | 9.4 | 47 | 3867.1 | 261.75 | 330.29 | 343.52 | 0.0231 |

## DIN 48206

| Nominal Cross Section | Cross Section of Steel Wires | Cross Section of Alloy Wires | Number of Alloy Wires | Diameter of Alloy Wires | Number of Steel Wires | Diameter of Steel Wires | Overall Diameter | Linear Mass | Rated Tensile Strength | Max.D.C. Resistance at 20°C |
|---|---|---|---|---|---|---|---|---|---|---|
| mm² | mm² | mm² | - | mm | - | mm | mm | kg/km | daN | Ω/km |
| 16/2.5 | 15.27 | 2.54 | 6 | 1.8 | 1 | 1.8 | 5.4 | 62 | 748 | 2.18 |
| 25/4 | 23.86 | 3.98 | 6 | 2.25 | 1 | 2.25 | 6.8 | 97 | 1171 | 1.3952 |
| 35/6 | 34.35 | 5.73 | 6 | 2.7 | 1 | 2.7 | 8.1 | 140 | 1685 | 0.9689 |
| 44/32 | 43.98 | 31.67 | 14 | 2 | 7 | 2.4 | 11.2 | 373 | 5027 | 0.7625 |



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|---|---|---|---|---|---|---|---|---|---|---|
| 50/8 | 48.25 | 8.04 | 6 | 3.2 | 1 | 3.2 | 9.6 | 196 | 2366 | 0.6898 |
| 50/30 | 51.17 | 29.85 | 12 | 2.33 | 7 | 2.33 | 11.7 | 378 | 5024 | 0.6547 |
| 70/12 | 69.89 | 11.4 | 26 | 1.85 | 7 | 1.44 | 11.7 | 284 | 3399 | 0.4791 |
| 95/15 | 94.39 | 15.33 | 26 | 2.15 | 7 | 1.67 | 13.6 | 383 | 4582 | 0.3547 |
| 95/55 | 96.51 | 56.3 | 12 | 3.2 | 7 | 3.2 | 16 | 714 | 9475 | 0.3471 |
| 105/75 | 105.67 | 75.55 | 14 | 3.1 | 19 | 2.25 | 17.5 | 899 | 12014 | 0.3174 |
| 120/20 | 121.57 | 19.85 | 26 | 2.44 | 7 | 1.9 | 15.5 | 494 | 5914 | 0.2754 |
| 120/70 | 122.15 | 71.25 | 12 | 3.6 | 7 | 3.6 | 18 | 904 | 11912 | 0.2742 |
| 125/30 | 127.92 | 29.85 | 30 | 2.33 | 7 | 2.33 | 16.3 | 590 | 7280 | 0.2621 |
| 150/25 | 148.86 | 24.25 | 26 | 2.7 | 7 | 2.1 | 17.1 | 604 | 7236 | 0.2249 |
| 170/40 | 171.77 | 40.08 | 30 | 2.7 | 7 | 2.7 | 18.9 | 794 | 9775 | 0.1952 |
| 185/30 | 183.78 | 29.85 | 26 | 3 | 7 | 2.33 | 19 | 744 | 8922 | 0.1822 |
| 210/35 | 209.1 | 34.09 | 26 | 3.2 | 7 | 2.49 | 20.3 | 848 | 10167 | 0.1601 |
| 210/50 | 212.06 | 49.48 | 30 | 3 | 7 | 3 | 21 | 979 | 12068 | 0.1581 |
| 230/30 | 230.91 | 29.85 | 24 | 3.5 | 7 | 2.33 | 21 | 674 | 10306 | 0.1449 |
| 240/40 | 243.05 | 39.49 | 26 | 3.45 | 7 | 2.68 | 21.8 | 985 | 11802 | 0.1378 |
| 265/35 | 263.66 | 34.09 | 24 | 3.74 | 7 | 2.49 | 22.4 | 998 | 11771 | 0.1269 |
| 300/50 | 304.26 | 49.48 | 26 | 3.86 | 7 | 3 | 24.5 | 1233 | 14779 | 0.1101 |
| 305/40 | 304.62 | 39.49 | 54 | 2.68 | 7 | 2.68 | 24.1 | 1155 | 13612 | 0.1101 |
| 340/30 | 339.29 | 29.85 | 48 | 3 | 7 | 2.33 | 25 | 1174 | 13494 | 0.0988 |
| 380/50 | 381.7 | 49.48 | 54 | 3 | 7 | 3 | 27 | 1448 | 17056 | 0.0879 |
| 385/35 | 386.04 | 34.09 | 48 | 3.2 | 7 | 2.49 | 26.7 | 1336 | 15369 | 0.0868 |
| 435/55 | 434.29 | 56.3 | 54 | 3.2 | 7 | 3.2 | 28.8 | 1647 | 19406 | 0.0772 |
| 450/40 | 448.71 | 39.49 | 48 | 3.45 | 7 | 2.68 | 28.7 | 1553 | 17848 | 0.0747 |
| 490/65 | 490.28 | 63.55 | 54 | 3.4 | 7 | 3.4 | 30.6 | 1860 | 21907 | 0.0684 |
| 550/70 | 549.65 | 71.25 | 54 | 3.6 | 7 | 3.6 | 32.4 | 2085 | 24560 | 0.061 |
| 560/50 | 561.7 | 49.48 | 48 | 3.86 | 7 | 3 | 32.2 | 1943 | 22348 | 0.0597 |
| 680/85 | 678.58 | 85.95 | 54 | 4 | 19 | 2.4 | 36 | 2564 | 30084 | 0.0494 |

**ASTM B711**



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| Conductor Area | Alloy Area | Steel Area | No. of Alloy Wires | Dia of Alloy Wire | No. of Steel Wires | Dia of Steel Wire | Dia of Conductor | Linear Weight | Rated Strength * | Maximum DC Resistance at 20 0C |
|---|---|---|---|---|---|---|---|---|---|---|
| mm2 | mm2 | mm2 | | mm | | mm | mm | Kg/km | daN | ? /km |
| 163 | 140 | 23 | 26 | 2.62 | 7 | 2.04 | 16.6 | 560 | 7500 | 0.24 |
| 173 | 140 | 33 | 30 | 2.44 | 7 | 2.44 | 17.1 | 650 | 8740 | 0.24 |
| 186 | 160 | 26 | 26 | 2.8 | 7 | 2.18 | 17.7 | 645 | 8560 | 0.21 |
| 198 | 160 | 38 | 30 | 2.61 | 7 | 2.61 | 18.3 | 740 | 10600 | 0.21 |
| 209 | 180 | 29 | 26 | 2.97 | 7 | 2.31 | 18.8 | 725 | 9510 | 0.187 |
| 222 | 180 | 42 | 30 | 2.76 | 7 | 2.76 | 19.3 | 825 | 11200 | 0.187 |
| 232 | 200 | 32 | 26 | 3.13 | 7 | 2.43 | 19.8 | 800 | 10600 | 0.168 |
| 247 | 200 | 47 | 30 | 2.91 | 7 | 2.91 | 20.4 | 920 | 12400 | 0.168 |
| 260 | 224 | 36 | 26 | 3.31 | 7 | 2.57 | 21 | 900 | 11800 | 0.15 |
| 276 | 224 | 52 | 30 | 3.08 | 7 | 3.08 | 21.6 | 1025 | 13900 | 0.15 |
| 291 | 250 | 41 | 26 | 3.5 | 7 | 2.72 | 22.2 | 1010 | 12900 | 0.135 |
| 308 | 250 | 58 | 30 | 3.26 | 7 | 3.26 | 22.8 | 1145 | 15600 | 0.135 |
| 326 | 280 | 46 | 26 | 3.7 | 7 | 2.88 | 23.4 | 1140 | 14400 | 0.12 |
| 345 | 280 | 65 | 30 | 3.45 | 7 | 3.45 | 24.2 | 1280 | 17100 | 0.12 |
| 367 | 315 | 52 | 26 | 3.93 | 7 | 3.06 | 24.9 | 1276 | 16300 | 0.107 |
| 387 | 315 | 72 | 30 | 3.66 | 19 | 2.2 | 25.6 | 1433 | 19000 | 0.107 |
| 413 | 355 | 58 | 26 | 4.17 | 7 | 3.24 | 26.4 | 1433 | 18300 | 0.095 |
| 436 | 355 | 81 | 30 | 3.88 | 19 | 2.33 | 27.2 | 1614 | 21100 | 0.095 |
| 465 | 400 | 65 | 26 | 4.43 | 7 | 3.45 | 28.1 | 1612 | 20700 | 0.0842 |
| 491 | 400 | 91 | 30 | 4.12 | 19 | 2.47 | 28.8 | 1816 | 23700 | 0.0842 |
| 509 | 450 | 59 | 54 | 3.26 | 19 | 1.96 | 29.5 | 1703 | 21500 | 0.0748 |
| 563 | 500 | 63 | 54 | 3.43 | 19 | 2.06 | 30.9 | 1873 | 22900 | 0.0673 |
| 631 | 560 | 71 | 54 | 3.63 | 19 | 2.18 | 32.7 | 2101 | 25700 | 0.0601 |
| 710 | 630 | 80 | 54 | 3.85 | 19 | 2.31 | 34.6 | 2365 | 28600 | 0.0534 |
| 800 | 710 | 90 | 54 | 4.09 | 19 | 2.45 | 36.8 | 2665 | 32200 | 0.0474 |
| 901 | 800 | 101 | 54 | 4.34 | 19 | 2.6 | 39 | 3000 | 36300 | 0.042 |



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|---|---|---|---|---|---|---|---|---|---|---|
| 973 | 900 | 73 | 84 | 3.69 | 19 | 2.21 | 40.6 | 3062 | 35500 | 0.0374 |
| 1081 | 1000 | 81 | 84 | 3.89 | 19 | 2.33 | 42.8 | 3395 | 39100 | 0.0337 |
| 1211 | 1120 | 91 | 84 | 4.12 | 19 | 2.47 | 45.3 | 3803 | 43900 | 0.03 |
| 1352 | 1250 | 102 | 84 | 4.35 | 19 | 2.61 | 47.8 | 4250 | 49000 | 0.027 |

## NF C34-125

| CodeName | | AlAlloy Area | SteelWire Area | No.Of AlAlloyWires | No.Of StWires | Dia ofWire | OverallDia ofConductor | TensStr ofAlAlloy | Tens Str ofSteel | RatedStr ofConductor | MaxDC Resist at 20 °C | LinearWeight | ElasticityMod* | CoefficientOf LinearExpansion* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mrn2 | mm2 | | | mm | mm | hbar | hbar | daN | ?/km | Kg/km | hbar | / °C |
| PHLOX | 37.7 | 28.27 | 9.42 | 9 | 3 | 2.00 | 8.3 | 32.4 | 156.8 | 2360 | 1.17 | 155 | 9300 | 17.0 x 10-1 |
| PHLOX | 59.7 | 37.70 | 21.99 | 12 | 7 | 2.00 | 10.0 | 32.4 | 156.8 | 4560 | 0.880 | 276 | 10800 | 15.3 x 106 |
| PHLOX | 75.5 | 47.71 | 27.83 | 12 | 7 | 2.25 | 11.25 | 32.4 | 156.8 | 5770 | 0.695 | 348 | 10800 | 15.3 X 10-6 |
| PHLOX | 116.2 | 56.55 | 59.69 | 18 | 19 | 2.00 | 14.0 | 32.4 | 156.8 | 10815 | 0.580 | 636 | 12400 | 14.2 x 10-6 |
| PHLOX | 147.1 | 71.57 | 75.54 | 18 | 19 | 2.25 | 15.75 | 32.4 | 156.8 | 13685 | 0.466 | 802 | 12400 | 14.2 X 10-6 |
| PASTEL | 147.1 | 119.28 | 27.83 | 30 | 7 | 2.25 | 15.75 | 32.4 | 156.8 | 8185 | 0.279 | 547 | 8400 | 18.1 x 10-6 |
| PHLOX | 181.6 | 88.36 | 93.27 | 18 | 19 | 2.50 | 17.5 | 32.4 | 156.8 | 16895 | 0-378 | 990 | 12400 | 14.2 x 10 6 |
| PASTEL | 181.6 | 147.26 | 34.36 | 30 | 7 | 2.50 | 17.5 | 32.4 | 156.8 | 10120 | 0.227 | 675 | 8400 | 18-1 x 10-1 |
| PHLOX | 228 | 110.83 | 116.99 | 18 | 19 | 2.80 | 19.6 | 32.4 | 156.8 | 21200 | 0.300 | 1244 | 12400 | 14.2 x 10-1 |
| PASTEL | 228 | 184.72 | 43.10 | 30 | 7 | 2.80 | 19.6 | 32.4 | 156.8 | 12680 | 0.180 | 848 | 8400 | 18.1 x 101 |
| PHLOX | 288 | 140.28 | 148.07 | 18 | 19 | 3.15 | 22.05 | 32.4 | 156.8 | 26800 | 0.237 | 1570 | 12400 | 14.2 x 101 |
| PASTEL | 288 | 233.80 | 54.55 | 30 | 7 | 3.15 | 22.05 | 32.4 | 156.8 | 16050 | 0.142 | 1074 | 8400 | 18.0 x 101 |
| PASTEL | 299 | 205.17 | 93.27 | 42 | 19 | 2.50 | 22.5 | 32.4 | 156.8 | 20875 | 0.162 | 1320 | 9650 | 16.3 x 10-1 |
| PHLOX | 376 | 147.78 | 227.83 | 24 | 37 | 2.80 | 25.2 | 32.4 | 156.8 | 38960 | 0.225 | 2211 | 13000 | 13.5 x 10-1 |

## (AACSR/GZ) AS/NZS 3607

| Product code | Strand/wire | | Cross sectional area | | | Nominal O.D. mm | Approximate mass kg/km | Calculated minimum breaking load kN | Calculated final modulus of elasticity GPa | Coefficient of linear expansion /°C x 10-6 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Alum No/mm | Steel No/mm | Alum mm2 | Steel mm2 | Total mm2 | | | | | |
| APPLE 1120 | 6/3.00 | 1/3.00 | 42.4 | 7.1 | 49.5 | 9 | 171 | 18.3 | 83 | 19.3 |
| BANANA 1120 | 6/3.75 | 1/3.75 | 66.3 | 11 | 77.3 | 11.3 | 268 | 27.9 | 83 | 19.3 |
| CHERRY 1120 | 6/4.75 | 7/1.60 | 106 | 14.1 | 120 | 14.3 | 402 | 40.7 | 80 | 19.9 |
| GRAPE 1120 | 30/2.50 | 7/2.50 | 147 | 34.4 | 182 | 17.5 | 677 | 74.4 | 88 | 18.4 |
| LEMON 1120 | 30/3.00 | 7/3.00 | 212 | 49.5 | 262 | 21 | 973 | 107 | 88 | 18.4 |
| LYCHEE 1120 | 30/3.25 | 7/3.25 | 249 | 58.1 | 307 | 22.8 | 1140 | 126 | 88 | 18.4 |
| LIME 1120 | 30/3.50 | 7/3.50 | 289 | 67.3 | 356 | 24.5 | 1320 | 143 | 88 | 18.4 |
| MANGO 1120 | 54/3.00 | 7/3.00 | 382 | 49.5 | 431 | 27 | 1440 | 149 | 78 | 19.9 |
| ORANGE 1120 | 54/3.25 | 7/3.25 | 448 | 58.1 | 506 | 29.3 | 1690 | 174 | 78 | 19.9 |
| OLIVE 1120 | 54/3.50 | 7/3.50 | 519 | 67.3 | 587 | 31.5 | 1960 | 197 | 78 | 19.9 |

## (AACSR/AZ) AS/NZS 3607



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| Product code | Strand/wire | | Cross sectional area | | | Nominal O.D. mm | Approximate mass kg/km | Calculated minimum breaking load kN | Calculated final modulus of elasticity GPa | Coefficient of linear expansion /°C x 10-6 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Alum No/mm | Steel No/mm | Alum mm2 | Steel mm2 | Total mm2 | | | | | |
| ARCHERY 1120 | 6/3.00 | 1/3.00 | 42.4 | 7.1 | 49.5 | 9 | 163 | 18.4 | 79 | 20.1 |
| BASEBALL 1120 | 6/3.75 | 1/3.75 | 66.3 | 11 | 77.3 | 11.3 | 254 | 27.6 | 79 | 20.1 |
| BOWLS 1120 | 6/4.75 | 7/1.60 | 106 | 14.1 | 120 | 14.3 | 385 | 40 | 76 | 20.6 |
| CRICKET 1120 | 30/2.50 | 7/2.50 | 147 | 34.4 | 182 | 17.5 | 636 | 75.2 | 82 | 19.4 |
| DARTS 1120 | 30/3.00 | 7/3.00 | 212 | 49.5 | 262 | 21 | 913 | 108 | 82 | 19.4 |
| DICE 1120 | 30/3.25 | 7/3.25 | 249 | 58.1 | 307 | 22.8 | 1070 | 127 | 82 | 19.4 |
| DIVING 1120 | 30/3.50 | 7/3.50 | 289 | 67.3 | 356 | 24.5 | 1240 | 143 | 82 | 19.4 |
| GOLF 1120 | 54/3.00 | 7/3.00 | 382 | 49.5 | 431 | 27 | 1380 | 150 | 75 | 20.6 |
| GYMNASTICS1120 | 54/3.25 | 7/3.25 | 448 | 58.1 | 506 | 29.3 | 1620 | 176 | 75 | 20.6 |
| HURDLES 1120 | 54/3.50 | 7/3.50 | 519 | 67.3 | 587 | 31.5 | 1880 | 197 | 75 | 20.6 |



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