



PLP Insulators for Power Transmission & Distribution Networks



PLP Insulators

for Power Transmission and Distribution Networks

- Porcelain & Polymeric Insulators
- Commitment to Quality
- State-of-the-art Manufacturing and In-House Testing Facilities
- IEC & Australian Standards
- Batch Tested as per Australian Standards
- Long Life & Reliable Performance

Preformed Line Products (Australia) Pty Ltd (PLP) is Australia's leading manufacturer and supplier of cable line hardware for aerial power and communications networks. Preformed Line Products products have benchmarked industry standards in technology and quality, to deliver highly dependable products, making PLP one of the most trusted names in the industry.

In a world where efficiency powers bottom lines, reliability becomes the key driver for productivity and performance, and consistent reliability can be achieved only through a focused approach and proficient implementation of world class practices. Insulators supplied by PLP are designed to meet dimensional, electrical and mechanical requirements of the Australian and IEC standards. The market demands that insulators supplied have a minimum life of 20 years, in all types of natural conditions, such as industrial pollution, salt-spray fog, rain, external heat and cold.

PLP's focus is to provide Porcelain and Polymer insulators for electrical transmission, distribution, sub-station and all other applications. Tested in world class laboratory facilities to Australian and IEC Standards, PLP supply voltage ranges varying from 11kV – 500kV in both Porcelain and Polymeric designs. PLP also cater for LV/MV range insulators. Munsell Grey is the color of choice unless a special glaze requirement is requested.



Station Post Insulators

Station Post Insulators are manufactured from non-porous electrical porcelain and tested as per Australian and IEC standards.



Disc Insulators

Disc insulators supplied by PLP will have a sacrificial "Zn" collar as standard on all pins and a parallel head design with galvanized end fittings. Sacrificial "Zn" collars on all disc insulators are of 99.9% purity to serve corrosion prone area. Insulators having alternative electro-mechanical ratings, spacing, and leakage distances to suit environmental conditions can be supplied. Strict quality control is imposed to ensure long life and reliable performance. Insulators are batch tested to Australian Standards at PLP's test laboratory located at 190 Power Street, Glendenning, NSW.



Composite Insulators

Manufactured and tested as per Australian Standards, these insulators are branded PLP. Polymer insulators are supplied with various metal fitting orientations based on the customer requirements. Insulators up to 35kV are stocked with a clevistongue orientation and a hex-pin standard on all insulators with capability to cater to higher voltage ranges. To ensure the highest integrity product, polymer insulator raw materials are sourced from world class suppliers. The main ingredient of a polymer insulator is silicon, it has both organic and inorganic characteristics. Therefore, silicon shows extremely excellent features of thermal resistance, chemical stability, electricity insulation, anti-abrasion and high luster compared to normal organic rubber materials.



LV/MV: Distribution Insulators

A wide range of LV/MV porcelain distribution insulators from LV to 33kV in Guy, Shackle and Pin configurations are available. Manufactured and tested as per Australian Standards, insulators are batch tested at PLP's Glendenning test laboratory.



Disc Insulators

Porcelain

Features:

- Manufactured and supplied by Aditya Birla Insulators,India ABI-Third largest manufacturer of Insulators in the world
- World class quality Standards
- State-of-the-art manufacturing and In-House test facilities
- Manufactured from non-porous electrical porcelain
- Sacrificial "Zn" collar standard on all pins
- Insulators tested at CPRI, a NABL accredited testing facility (NATA equivalent)
- Batch tested to Australian Standards

| Part Number | Fixing | Security Clip | Spacing (mm) | Creepage Distance | Electro Mechanical Strength (kN) |
|----------------|-----------------|------------------|-----------------|----------------------|---|
| I-U70B-PWZ | Ball & Socket | W | 146 | 320 | 70 |
| I-U70C-PZ | Tounge & Clevis | | 146 | 320 | 70 |
| I-U160BS-PRZ | Ball & Socket | R | 146 | 320 | 160 |

Note:

- Dimensional and performance characteristics in accordance with IEC and Australian standards
- Higher rated units can be supplied upon request



Disc Insulators

Glass

| Part Number | Fixing | Security Clip | Spacing (mm) | Creepage Distance | Electro Mechanical Strength (kN) |
|----------------|---------------|------------------|-----------------|----------------------|---|
| I-U70B-GWZ* | Ball & Socket | R | 146 | 320 | 70 |
| I-U120B-GWZ* | Ball & Socket | R | 146 | 320 | 120 |

^{*} Non stocked item



Station Post Insulators

Porcelain

Features:

- Manufactured and supplied by Aditya Birla Insulators, India
- · ABI- Third largest manufacturer of Insulators in the world
- World class quality Standards
- State-of-the-art manufacturing and In-House test facilities
- Capability up to 800kV
- Insulators tested at CPRI, a NABL accredited testing facility (NATA equilvalent)
- Batch tested to Australian Standards
- Stocked at PLP Australia

| Part Number | Rated Volt. (kV) | BIL (kV) | Cantilever Strength (kN) | Polution Level | Crepage (mm) | Height |
|---------------------------------|------------------------|-------------|--------------------------------|-------------------|-----------------|--------|
| I-C6-650-4495C-1500H 127/127 | 132 | 750 | 6 | 4 | 4495 | 1500 |
| I-C10-650-3625C-1500H 127/127 | 132 | 750 | 10 | 3 | 3625 | 1500 |
| I-C12.5-650-3625C-1500H 127/254 | 132 | 650 | 12.5 | 3 | 3650 | 1500 |
| I-C6-650-3730C-1473H 127/127 | 132 | 650 | 6 | 3 | 3733 | 1473 |
| I-C8-350-II-76HT | 66 | 350 | 8 | 2 | 1690 | 762 |
| I-C10-325-1815C-770H 127/127 | 66 | 325 | 10 | 3 | 1820 | 770 |
| I-C6-200-I-508HT | 33 | 200 | 6 | 1 | 840 | 508 |
| I-C4-200-1000C-400H 76/76 | 33 | 200 | 4 | 3 | 1000 | 400 |
| I-C4-200-200-I-458HT | 33 | 200 | 4 | 1 | 850 | 458 |
| I-C10-200-II-458HT | 33 | 200 | 10 | 2 | 950 | 458 |
| I-C10-200-900C-475H 76/76 | 33 | 200 | 10 | 3 | 950 | 475 |
| I-C8-225-810C-381H | 36 | 170 | 3 | 3 | 810 | 381 |
| I-C6-150-I-355HT | 22 | 150 | 6 | 1 | 610 | 355 |
| I-C4-150-500C-300H 76/76 | 22 | 150 | 4 | 3 | 500 | 300 |
| I-C9-125-400C-254HT TR-205 | 11 | 110 | 10 | 3 | 400 | 255 |
| I-C6-1050-7595C-2300H | 220 | 1050 | 6 | 4 | 7595 | 2300 |

Notes:

- Dimensional and performance characteristics in accordance with IEC and Australian standards (AS 4395.1)
- Details of Station Posts not mentioned above can be provided upon request



Polymeric Insulators

Long Rod & Line Post Type

Features:

- Wide product range
- Substation, Traction, Line Post and Transmission Insulators
- Insulators manufactured and tested per IEC and Australian Standards
- Tested at NATA equivalent testing facilites

| Part Number | Rated Voltage (kV) | Min Creepage Distance (mm) | SML (kV) | Critical Impulse Voltage (kV) | Length (mm) | End Fittings |
|-------------------|--------------------------|-------------------------------------|-------------|--|----------------|-----------------|
| I-CS70-15-CT-H | 15 | 425 | 70 | 155 | 330+-15 | Clevis-Tounge |
| I-CS70-25-CT-H | 25 | 645 | 70 | 220 | 430+-20 | Clevis-Tounge |
| I-CS70-35-CT-H | 35 | 859 | 70 | 275 | 525+-25 | Clevis-Tounge |
| I-CS70-36-BS | 36 | 1180 | 70 | 275 | 610+-10 | Ball-Socket |
| I-CS70-36-CT-H | 36 | 1180 | 70 | 275 | 635+-10 | Clevis-Tounge |
| I-CS120-36-BS | 36 | 1180 | 120 | 275 | 640+-10 | Ball-Socket |
| I-CS120-36-CT-H | 36 | 1180 | 120 | 275 | 655+-10 | Clevis-Tounge |
| I-CS70-36-BS | 36 | 1180 | 70 | 410 | 640 | Ball-Socket |
| I-CS70-36-CT-H | 36 | 1180 | 70 | 410 | 640 | Clevis-Tongue |
| I-CS120-36-BS | 36 | 1180 | 120 | 410 | 640 | Ball-Socket |
| I-CS120-36-CT-H | 36 | 1180 | 120 | 410 | 640 | Clevis-Tongue |
| I-LPO-36-TT-1140C | 36 | 1140 | 12.5 | 210 | 480 | Tie-Top |
| I-CS140-69-SB* | 69 | 1790 | 140 | 395 | 750+-5 | Clevis-Tounge |
| I-CS120-135-SB* | 135 | 3520 | 120 | 735 | 1329 | Clevis-Tounge |

^{*} Non stocked item

Notes:

- Dimensional and performance characteristics in accordance with IEC and Australian standards
- Other voltages and SML's available on request



LV/MV Distribution Insulators

Shackle & Pin Type

| Part No | | Dime | ensions | Thread | Pin | Min F.L. | | |
|---------|----|-----------|-----------|-----------|-----------|----------|-----------|------|
| | A | Dia. B | Dia. C | Dia. D | Rad. E | | | kN |
| I-SHLV1 | 54 | 57 | 39 | 17 | 17 | - | - | 9kN |
| I-SHLV2 | 76 | 80 | 54 | 17 | 12 | - | - | 20kN |
| I-SHLV8 | 32 | 57 | 40 | 17 | 7 | - | - | 9kN |
| I-LVLP | 91 | 82 | 52 | - | 11 | Patt "B" | B/100/3.5 | 7kN |

Notes:

- Dimensional and performance characteristics in accordance with AS2947.2
- Threads in accordance with AS2947.3



LV/MV Distribution Insulators

Guy Strain

| Part | | Dimensions (mm) | | | | | | | | | | | |
|-------|-----|-----------------|----|-----|----|-----|----|----|----|----|----|------------|--|
| No | Α | В | С | D | Е | F | G | Н | П | J | K | F.L. kN | |
| I-GY2 | 73 | 41 | 44 | 73 | 44 | 146 | 22 | 51 | 22 | 37 | 37 | 71 kN | |
| I-GY3 | 115 | 57 | 67 | 115 | 57 | 216 | 38 | 51 | 38 | 63 | 63 | 222 kN | |
| I-GY4 | 115 | 57 | 67 | 115 | 57 | 280 | 38 | 51 | 38 | 95 | 95 | 222 kN | |

- Dimensional and performance characteristics in accordance with AS2947.2
- Threads in accordance with AS2947.3



LV/MV Distribution Insulators

Standard Line Pin

| Part | Part Voltage Creepage No (kV) (mm) | Creepage | | Dimer | nsions | s (mm |) | Thread | Pin | Min |
|-------------|---------------------------------------|----------|-----|-------|--------|-------|-----|----------|----------|------------|
| No | | (mm) | Α | В | С | D | Е | | | F.L. kN |
| I-SLP11-180 | 11 | 180 | 106 | 140 | 76 | R13 | R16 | Patt "A" | A/130/7 | 7 kN |
| I-SLP22-420 | 22 | 420 | 168 | 228 | 113 | R13 | R16 | Patt "C" | C/150/11 | 11 kN |
| I-SLP33-534 | 33 | 534 | 194 | 279 | 113 | R13 | R16 | Patt "C" | C/200/11 | 11 kN |

- Dimensional and performance characteristics in accordance with AS2947.2
 Threads in accordance with AS2947.3



LV/MV Distribution Insulators

Aerodynamic Line Pin

| Part No | Voltage (kV) | | page m) | | Din | nensi | Pin | Min F.L. | | | |
|--------------|-----------------|-----|------------|-----|-----|-------|-----|-------------|-----|----------|-------|
| | | X-Y | X-Z | Α | В | С | D | Е | F | | kN |
| I-ALP11-275 | 11 | 235 | 275 | 136 | 102 | 76 | 152 | 76 | 136 | C/150/7 | 7 kN |
| I-ALP22-450 | 22 | 365 | 450 | 148 | 102 | 76 | 200 | 74 | 160 | C/200/11 | 11 kN |
| I-ALP22-520C | 22 | 380 | 520 | 127 | 102 | 76 | 240 | 89 | 165 | C/200/11 | 11 kN |
| I-ALP33-920 | 33 | 755 | 920 | 240 | 102 | 76 | 320 | 133 | 240 | C/300/7 | 11 kN |

Notes:

- Dimensional and performance characteristics in accordance with AS2947.2
- Threads in accordance with AS2947.3

INSULATOR CATALOGUE





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