

# CROWN PPR PIPES



# TECHNICAL SPECIFICATIONS & MATERIAL PROPERTIES

## APPLICATIONS

- Hot & Cold potable water supply in residential and commercial buildings
- HVAC and compressed air system
- Pipe networks for rainwater utilization system
- Pipe networks for agricultural & horticultural use
- Pipe networks for swimming pool facilities
- Pipe networks for aggressive fluids (acidic, alkaline & corrosive chemicals etc.)

## QUALITY

Crown Plastic products are designed to meet the harsh climate conditions of the GCC region and places emphasis on Quality, Reliability and Economy.

Crown Plastic follow strict in-house Quality Control and backed by testing through independent laboratories of international repute to certify the quality of pipes and fittings.

Crown Plastic do great emphasis on customer satisfaction through quality products. The company's operational excellence is evident through its established Quality management system which complies with ISO 9001 - 2015 standard, certified by quality Accreditation Bureau for Qualified Companies (QA QC), USA.

## RAW MATERIALS

Crown Plastic PPR pipes are produced from the world's proven highest quality raw materials producers.

## ADVANTAGES

- Very long life time with a guaranteed service life of 50 years
- Cost effective pipeline networks
- High impact strength & flexibility
- Damage resistance
- Damped vibrations and sounds are absorbed resulting to noise reduction
- Light weight, easy to install and low labour cost of installations
- Resistant to corrosion as compared to metal products
- Environment-friendly as it takes less energy to manufacture PPR pipes and are recyclable compared to its metal counterparts
- Hygienic and non-toxic compared to metal or other plastic products

## COLOUR

The colour of Crown Plastic Products are available according to the standards and custom colour

## PROPERTIES OF CROWN PPR PIPES

| Physical Properties       | Test Method | Value                  |
|---------------------------|-------------|------------------------|
| Density at +23°C          | ISO 1183    | 0,897g/cm <sup>3</sup> |
| Melt mass-flow rate (MFR) | ISO 1133    |                        |
| 190°C/5.0kg               |             | 0,55g/10min            |
| 230°C/2.16kg              |             | 0,39g/10min            |
| 230°C/5.0kg               |             | 1,30g/10min            |

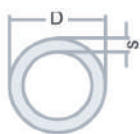
| Machanical Properties                               | Test Method  | Value   |
|---|--------------|---------|
| Tensile modulus                                     | ISO 527-2/1  | 850Ma   |
| Tensile stress                                      | ISO 527-2/50 | 24,0Mpa |
| Tensile strain at yield to 50mm/<br>min 1,30g/10min | ISO 527-2/50 | 10%     |

| Impac                      | Test Method | Value                      |
|----------------------------|-------------|----------------------------|
| Charpy notched impact      | ISO 179     |                            |
| -30°C                      |             | 2,50 kJ/m <sup>2</sup>     |
| 0°C                        |             | 4,00 kJ/m <sup>2</sup>     |
| 23°C                       |             | 22,00 kJ/m <sup>2</sup>    |
| Charpy - Un notched impact | ISO 179     |                            |
| -30°C                      |             | 43,00 kJ/m <sup>2</sup>    |
| 0°C                        |             | no break kJ/m <sup>2</sup> |
| 23°C                       |             | no break kJ/m <sup>2</sup> |

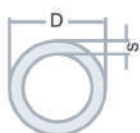
| Hardness                  | Test Method | Value                 |
|---------------------------|-------------|-----------------------|
| Shore hardness D          | ISO 868     | 65                    |
| Ball indentation hardness | ISO 2039-1  | 48,0N/mm <sup>2</sup> |

| Thermal Properties               | Test Method | Value     |
|----------------------------------|-------------|-----------|
| Melting Tempreature              | ISO 3146    | 147°C     |
| Thermal conductivity at 20°C     | DIN 53612   | 0,24 W/mk |
| Coefficient of linear temperture | DIN 53752   | 1.5 10-4K |
| Vicat softening temperature      |             |           |
| (A50(50°C/h, 10N))               | ISO 306/A50 | 132°C     |
| (B50(50°C/h, 50N))               | ISO 306/B50 | 69,0°C    |

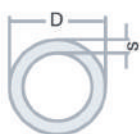


**Parameters of PPR Pipe SDR11/PN10 in accordance to DIN 8077/78**

| PART      | DIMENSIONS | WALL THICKNESS | INNER DIAMETER | PACKING UNIT | Kg/Mtr. |
|-----------|------------|----------------|----------------|--------------|---------|
| CPPR1020  | 20         | 1.9            | 16.0           | 100 Mtrs     | 0.107   |
| CPPR1025  | 25         | 2.3            | 20.4           | 100 Mtrs     | 0.164   |
| CPPR1032  | 32         | 2.9            | 26.2           | 40 Mtrs      | 0.261   |
| CPPR1040  | 40         | 3.7            | 32.6           | 40 Mtrs      | 0.412   |
| CPPR1050  | 50         | 4.6            | 40.8           | 20 Mtrs      | 0.638   |
| CPPR1063  | 63         | 5.8            | 51.4           | 20 Mtrs      | 1.010   |
| CPPR1075  | 75         | 6.8            | 61.4           | 16 Mtrs      | 1.410   |
| CPPR1090  | 90         | 8.2            | 73.6           | 12 Mtrs      | 2.030   |
| CPPR10110 | 110        | 10.0           | 90.0           | 8 Mtrs       | 3.010   |

**Parameters of PPR Pipe SDR7.4/PN16 in accordance to DIN 8077/78**

| PART      | DIMENSIONS | WALL THICKNESS | INNER DIAMETER | PACKING UNIT | Kg/Mtr. |
|-----------|------------|----------------|----------------|--------------|---------|
| CPPR1620  | 20         | 2.8            | 14.4           | 100 Mtrs     | 0.147   |
| CPPR1625  | 25         | 3.5            | 18             | 100 Mtrs     | 0.229   |
| CPPR1632  | 32         | 4.4            | 23.2           | 40 Mtrs      | 0.370   |
| CPPR1640  | 40         | 5.5            | 29             | 40 Mtrs      | 0.578   |
| CPPR1650  | 50         | 6.9            | 36.2           | 20 Mtrs      | 0.906   |
| CPPR1663  | 63         | 8.6            | 45.8           | 20 Mtrs      | 1.426   |
| CPPR1675  | 75         | 10.3           | 54.4           | 16 Mtrs      | 2.031   |
| CPPR1690  | 90         | 12.3           | 65.4           | 12 Mtrs      | 2.880   |
| CPPR16110 | 110        | 15.1           | 79.8           | 8 Mtrs       | 4.295   |

**Parameters of PPR Pipe SDR6/PN20 in accordance to DIN 8077/78**

| PART      | DIMENSIONS | WALL THICKNESS | INNER DIAMETER | PACKING UNIT | Kg/Mtr. |
|-----------|------------|----------------|----------------|--------------|---------|
| CPPR1620  | 20         | 3.4            | 13.2           | 100 Mtrs     | 0.172   |
| CPPR1625  | 25         | 4.2            | 16.6           | 100 Mtrs     | 0.266   |
| CPPR1632  | 32         | 5.4            | 21.2           | 40 Mtrs      | 0.432   |
| CPPR1640  | 40         | 6.7            | 26.6           | 40 Mtrs      | 0.670   |
| CPPR1650  | 50         | 8.3            | 33.4           | 20 Mtrs      | 1.040   |
| CPPR1663  | 63         | 10.5           | 42.0           | 20 Mtrs      | 1.645   |
| CPPR1675  | 75         | 12.5           | 50.0           | 16 Mtrs      | 2.340   |
| CPPR1690  | 90         | 15.0           | 60.0           | 12 Mtrs      | 3.360   |
| CPPR16110 | 110        | 18.3           | 73.4           | 8 Mtrs       | 5.008   |



**CROWN PLASTIC**

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**PVC | UPVC | PPR | PEX | HDPE**

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