

PPR Pipe Sizes Chart: mm, inch, DN and OD × wall by PN

PP-R pressure pipe is sized by **outside diameter (OD) in millimetres**, not by bore or by inch. The inch figures below are nominal cross-references for people converting from steel or copper habits — a “¾-inch PPR” request is served by 25 mm OD pipe, but the tender line should read **dn 25 × en 4.2**, never “¾”.

1. OD to nominal inch and DN cross-reference

PPR Outer Diameter (OD, mm)	Nominal inch equivalent	DN cross-reference (approx.)	Typical use
20 mm	~1/2"	DN15	Fixture branches, small hot/cold runs
25 mm	~3/4"	DN20	Standard risers, apartment supply
32 mm	~1"	DN25	Main branches, manifolds
40 mm	~1-1/4"	DN32	Distribution mains
50 mm	~1-1/2"	DN40	Building risers
63 mm	~2"	DN50	Primary mains, commercial systems

2. OD × wall thickness (mm) by pipe structure and PN class

OD (mm)	Plain PPR · PN20	Plain PPR · PN25	PPR-AL-PPR · PN20	PPR-AL-PPR · PN25	Fiberglass · PN20	Fiberglass · PN25
20	20 × 2.8	20 × 3.4	20 × 3.1	20 × 3.4	20 × 2.8	20 × 3.4
25	25 × 3.5	25 × 4.2	25 × 3.3	25 × 4.2	25 × 3.5	25 × 4.2
32	32 × 4.4	32 × 5.4	32 × 4.1	32 × 5.4	32 × 4.4	32 × 5.4
40	40 × 5.5	40 × 6.7	40 × 5.0	40 × 6.7	40 × 5.5	40 × 6.7
50	50 × 6.9	50 × 8.4	50 × 5.5	50 × 8.4	50 × 6.9	50 × 8.4
63	63 × 8.6	63 × 10.5	63 × 7.0	63 × 10.5	63 × 8.6	63 × 10.5

Walls per ISO 15874-2:2013+A2:2022 series S 3.2 (SDR 7.4, catalogue “PN20”) and S 2.5 (SDR 6, catalogue “PN25”). Multilayer PPR-AL-PPR PN20 walls are the composite total and differ from plain PP-R at the same pressure class; fiberglass (PP-R/PP-R-GF/PP-R) shares the plain-PP-R wall table. Values are nominal; check the marked en on the pipe.

Same OD, different pipe. PN20 and PN25 at the same OD have different walls and therefore different bores. A 25 mm PN25 pipe carries less flow than 25 mm PN20 at the same velocity — size the circuit from the bore, not the OD, when the pressure class changes.

3. Pipe series S, SDR and the two “PN” naming conventions

The word “PN20” means different things in different catalogues. DIN 8077 labels the S 2.5 / SDR 6 wall as PN 20; most Turkish, Gulf and Asian catalogues label the same wall PN 25. This table lines them up so a spec written in one convention can be checked against pipe marked in the other.

Pipe series S (ISO 15874-2)	SDR	DIN 8077:2008-09 label	Catalogue label (TR / Gulf / Asia)	Wall at 20 / 25 / 32 mm OD (mm)
S 5	11	PN 10	PN 10	1.9 / 2.3 / 2.9
S 3.2	7.4	PN 16	PN 20 (this chart)	2.8 / 3.5 / 4.4
S 2.5	6	PN 20	PN 25 (this chart)	3.4 / 4.2 / 5.4
S 2	5	PN 25	rarely stocked	4.1 / 5.1 / 6.5

Source: pipe series and walls per ISO 15874-2:2013+A2:2022 and DIN 8077:2008-09; PN-to-SDR labels per DIN 8077:2008-09 as reproduced in the Wavin Pilsa PPR Product & Technical Manual.

4. How to write the size on a specification or tender

- **Standard:** TS EN ISO 15874-2 (Türkiye), EN ISO 15874-2 (EU) or ISO 15874-2 (international) — not “ISO type-5” and not “DIN” alone.
- **Size:** **dn** × **en** in millimetres, e.g. **dn 25 × en 4.2**. Do not write DN20 or ¾” for a 25 mm PP-R pipe.
- **Series:** S 2.5 / SDR 6 (or S 3.2 / SDR 7.4). A bare “PN 25” is ambiguous between the two naming conventions above.
- **Duty:** application class (1, 2, 4 or 5 per ISO 10508) and design pressure, e.g. “Class 2, 10 bar” — not “PN 20 hot water”.
- **Evidence:** the certificate number and scope for the exact dn range, not a generic “CE certificate” (there is no harmonised CE route for plastic pressure pipe).

5. Quick reference: what each OD is normally used for

- **20 mm** — fixture branches, single hot/cold runs to a tap or WC.
- **25 mm** — apartment supply and standard risers; the most stocked size.
- **32 mm** — main branches and manifold feeds.
- **40 / 50 mm** — distribution mains and building risers.
- **63 mm** — primary mains and commercial systems; the top of the socket-fusion range for most installers.

Prepared by Bekaatherm Technical & Export Team. Dimensional references: ISO 15874-2:2013+A2:2022; DIN 8077:2008-09; TS EN ISO 15874-2. This chart is a sizing aid; the governing figures are the standard, en and series marked on the pipe you receive. Full article and sizing method: <https://bekatherm.com/blog-ppr-pipe-sizes-chart/>