

UPDATE BULLETIN 20-1

SEPTEMBER 2020

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**REVISIONS TO DS60 WATER SUPPLY DISTRIBUTION STANDARD – PIPELINES
OTHER THAN RETICULATION**

Replace Clause 2.11.1 with:

Acceptability

To address premature failures of ordinary PE100 and the limited experience with new PE100 resins, PE100 is not to be used where there is a viable alternative pipe material. PE100 pipe may be accepted where PE100 is the only viable option, the minimum requirements listed below must be met. Note that meeting the minimum requirements does not imply acceptance. PE100 pipes must:

- *not to be used for chlorinated water capable of reaching 25°C or higher;*
- *be de-rated for pressure by a factor of 0.45 applied separately to any temperature and fatigue deratings applied;*
- *be manufactured from a resin approved for use by Water Corporation in chlorinated applications. Such approval is only demonstrated by being listed on the Strategic Product Register;*
- *not to be used for water with elevated chlorine or very low pH water;*
- *have repair fittings readily available (which is problematic in larger diameters); and*
- *meet the diameters listed within the Strategic Products Register*

All polyethylene (PE100) pipes and stub-flanges used in chlorinated water applications must be entirely fabricated from resins that are both:

1. *classed as HSCR (as per PIPA document POP016); and*
2. *considered Disinfection Resistant in accordance with SPS125 and listed as such in the Strategic Product Register.*

Pipes and stub flanges must be indelibly marked with the resin manufacturer and resin name.

Compliant resins are identified in the Water Corporation’s Strategic Product Register. The use of any other resins is not permitted.

Replace Clause 2.11.2 with:

Fittings

PE100 shall not be used for fittings, with the exception of stub flanges. Unless the ground conditions are unsuitably corrosive, DI bends and tees should be used for sizes up to the range of availability. MSCL bends and tees should be used for larger diameters. PE stub flanges shall:

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- *be butt-fusion-welded type;*
 - *de-rated by the same factor as applied to the adjoining PE pipe in addition to any other applicable derating; and*
 - *be fabricated from the same resin as the adjoining PE pipe*

Replace Clause 2.11.4 with

De-rating

PE pipes shall be de-rated for pressure by a factor of 0.45 when used in chlorinated applications or any other circumstances featuring elevated ORP.

PE pipes shall also be separately de-rated for elevated temperatures and for cyclic pressure fluctuations in accordance with clauses 2.6 and 2.7.

This change will come into effect for all projects commencing construction on or after 01 January 2021, and designs are expected to adopt this new requirement as soon as reasonably practical, even for projects commencing prior to 01 January.

Enquiries regarding the above revisions can be directed to
Engineering.StandardsEnquiries@watercorporation.com.au.