

- I. The pipes shall be manufactured from polyethylene containing only those anti-oxidants, UV stabilizers and pigments necessary for the manufacture of pipes conforming to this specification. All material used in the manufacture of the pipes shall be pre-compounded at the resin Manufacturer's facility.
- J. The carbon black content in the compound shall be $2.25 + 0.25$ % by mass when measured in accordance with ISO 6964. The dispersion of carbon black when determined in accordance with ISO 11420 shall be equal to or less than grade 3.
- K. The pipe Manufacturer shall confirm that all fittings to be provided for the pipe system meet the same quality requirements as for the pipes to ensure the same performance over the design life cycle. Fittings shall be manufactured in accordance with the requirements of ISO 4427-3.
- L. PE100 pipes to be installed in areas having rocky ground conditions and those to be installed using trenchless technology applications shall be manufactured from a high stress crack resistant (HSCR) PE100, also referred to as PE100-RC material. Pipes manufactured from such material shall have undergone the Notched Pipe Test at an independent 3rd party laboratory in accordance with ISO 13479 and the time to failure shall have been a minimum of 8,760 hours (1 year). All other characteristics shall comply with the requirements of ISO 4427 and this specification.

20.2.1.2 Effects on Water Quality

- A. The material of the polyethylene pipes and fittings which is in contact with or likely to come in contact with water shall not constitute a toxic hazard, support microbial growth or give rise to unpleasant taste or odour, cloudiness or discoloration of the water.

Materials in contact with water shall be certified by an internationally recognized authority, such as the WRAS Certification Scheme, as being non-tainting and suitable for being in permanent contact with potable water in accordance with BS EN 6920 last revision.

20.2.1.3 PIPE DIMENSIONS

- A. Pipe nominal size, ovality, outside diameter and wall thickness shall all comply with the requirements of the tables given in ISO 4427-2 and measured in accordance with ISO 11922 and ISO 3126. The following table, which is taken