

BUREAU OF INDIAN STANDARDS
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मसौदा संशोधन सं. 1

आई एस 12786 : 2024 सिंचाई उपकरण – सिंचाई के लिए पॉलीथीन पाइप – विशिष्टि
(पहला पुनरीक्षण)

Draft AMMENDMENT NO. 1

to

**IS 12786 : 2024 IRRIGATION EQUIPMENT — POLYETHYLENE PIPES FOR
IRRIGATION LATERALS — SPECIFICATION (first revision)**

Farm Irrigation and Drainage Systems
Sectional Committee, FAD 17

Last date for Comments: **2 October 2025**

[Page 1, clause 4.1] — Substitute following for the existing text:

‘4.1 Extrusion compounds shall be manufactured from a mixture of the following:

- Polyethylene, which may include copolymers of ethylene and higher olefins, in which the higher olefin constituent does not exceed 10 percent (m/m). Polyethylene of grade PE 25 or higher, having a minimum design creep rupture stress of 2.5 MPa for 10 years life at a maximum of 800 working hours per year at 35 °C shall be used.
- Antioxidant in an amount not exceeding 0.5 percent (m/m).
- Carbon black master batch, complying to the requirement given in 4.4.

NOTES

1 Pre-compounded raw material may also be used to manufacture the pipes. The carbon black content shall be in range of 2 to 3 percent.

2 A test report on material classification conformity shall be obtained from the raw material manufacturer.’

[Page 2, clause 4.3] — Insert the following new clause after 4.3:

‘4.4 Carbon Black Master Batch Specification

Carbon black master batch shall consist of a mixture of the following:

- Polyethylene which may include co-polymer of ethylene and higher olefin, constituent, in which the higher olefin constituent does not exceed 10 percent (mass/mass) and density of 910 – 950 kg/m³.
- Loading of carbon black shall not exceed 50 percent (mass/mass).
- Ash content shall be < 0.10 percent.
- Carbon black used in carbon black master batch shall comply with the following requirements:
 - Carbon black density: 1.50 – 2.00 g/ml

- 2) Toluene extract of carbon black: Not more than 0.10 percent (m/m) [see Annex A]
- 3) Maximum volatile matter: 0.90 percent (m/m) [see Annex B]
- 4) Carbon particle size not more than 0.025 micron.

NOTE — A test report on conformity may be obtained from the carbon black master batch manufacturer.'

(FAD 17)