

4"-10" (100-250 mm) HDPE PER AASHTO RESIN PROPERTIES DETAIL

This document provides the cell classification and respective material properties in accordance with ASTM D3350-14 for the high-density polyethylene resin used for productions of 4"-10" (100-250 mm) ADS N-12® dual wall pipe meeting the requirements of AASHTO M252, Type S or SP and ADS Single Wall Highway pipe meeting the requirements of AASHTO M252, Type C or CP.

Cell Classification per ASTM D3350-14: **424420C**

Cell Class Number	Property	Test Method	Units	Value
4	Density	ASTM D1505	g/cm ³	>0.947-0.955
2	Melt Index	ASTM D1238	g/10min	1.0-0.4
4	Flexural Modulus	ASTM D790	psi (MPa)	80,000 to <110,000 (552 to <758)
4	Tensile Strength	ASTM D638	psi (MPa)	3,000 to <3,500 (21 to <24)
2	Slow Crack Growth Resistance, ESCR	ASTM D1693	Test condition, 100% Igepal Test duration, hours Failure, max	B 24 50%
0	Hydrostatic Design Basis	ASTM D2837	psi (MPa)	Not pressure rated
C	Color and UV Stabilizer	ASTM D3350	-	Black; Minimum 2% Maximum* 4%

* Not specified in ASTM D3350; requirements per AASHTO M252.