

## 12”-60” (300-1500 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 12”-60” (300-1500 mm) ADS N-12® dual wall pipe meeting the requirements of AASHTO M294, Type S or SP and ADS Single Wall Highway pipe meeting the requirements of AASHTO M294, Type C or CP.

Cell Classification per ASTM D3350-14: **435400C**

Cell Class Number	Property	Test Method	Units	Value
4	Density	ASTM D1505	g/cm <sup>3</sup>	>0.947-0.955
3	Melt Index	ASTM D1238	g/10min	<0.4-0.15
5	Flexural Modulus	ASTM D790	psi (MPa)	110,000 to <160,000 (758 to <1103)
4	Tensile Strength	ASTM D638	psi (MPa)	3,000 to <3,500 (21 to <24)
0+	Slow Crack Growth Resistance, ESCR	ASTM D1693	Test condition, 100% Igepal Test duration, hours Failure, max	Unspecified Unspecified Unspecified
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; requirement per AASHTO M294.

+ In accordance with AASHTO M294 and ASTM F2306, a notched constant ligament-stress (NCLS) test shall be used to test for slow crack growth resistance.