



June 4, 2015

This document provides the cell classification and respective material properties in accordance with ASTM D3350-14 for the high density polyethylene resin used for production of 12-60" 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	ASTM Test Method	Unit	Value
<b>4</b>	Density	D1505	g/cm <sup>3</sup>	>0.947 – 0.955
<b>3</b>	Melt Index	D1238	g/10min	<0.4 – 0.15
<b>5</b>	Flexural Modulus	D790	psi (MPa)	110,000 to <160,000 (758 to <1103)
<b>4</b>	Tensile Strength	D638	psi (MPa)	3,000 to <3,500 (21 to <24)
<b>0<sup>+</sup></b>	Slow Crack Growth Resistance, ESCR	D1693	Test condition, 100% Igepal Test duration, hours Failure, max	Unspecified Unspecified Unspecified
<b>0</b>	Hydrostatic Design Basis	D2837	psi (MPa)	Not pressure rated
<b>C</b>	Color and UV Stabilizer	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.