



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 ASTM F2648 (perforated and non-perforated). Additionally, minimum recycled content shall be 40%

Cell Classification per ASTM D3350-14: **435420C**

Cell Class Number	Property	ASTM Test Method	Unit	Value
4	Density	D1505	g/cm ³	>0.947 – 0.955
3	Melt Index	D1238	g/10min	<0.4 – 0.15
5	Flexural Modulus	D790	psi (MPa)	110,000 to <160,000 (758 to <1103)
4	Tensile Strength	D638	psi (MPa)	3,000 to <3,500 (21 to <24)
2	Slow Crack Growth Resistance, ESCR	D1693	Test condition, 100% Igepal Test duration, hours Failure, max	B 24 50%
0	Hydrostatic Design Basis	D2837	psi (MPa)	Not pressure rated
C	Color and UV Stabilizer	D3350	--	Black; Minimum 2%, Maximum* ≤4%

*Not specified in ASTM D3350; requirement per ASTM F2648