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This document provides the material properties for the polypropylene resin used for production of 12-60" ADS HP Storm dual wall (Type S) pipe and 30-60" ADS HP Storm triple wall (Type D) pipe, both meeting the requirements of AASHTO M330 (perforated and non-perforated).

| Property                      | ASTM Test Method | Unit                                       | Value                             |
|-------------------------------|------------------|--|-----------------------------------|
| Density                       | D1505            | g/cm <sup>3</sup>                          | 0.900 – 0.950                     |
| Melt Flow Rate                | D1238            | g/10min                                    | 0.15 – 1.5                        |
| Flexural Modulus              | D790             | psi (MPa)                                  | 175,000 to 275,000 (1200 to 1900) |
| Tensile Strength              | D638             | psi (MPa)                                  | 3,500 to 4,500 (21 to 31)         |
| Elongation at Yield           | D638             | %  | 5 to 25                           |
| IZOD Impact Strength          | D256             | Ft-lb/in <sup>2</sup> (kJ/m <sup>2</sup> ) | 23.8 (50) to No Break             |
| Oxidative-Induction Time      | D3895            | Min  | 25 to 200                         |
| 75-year Modulus of Elasticity | D6992            | psi (MPa)                                  | 27,000 (186) or greater           |
| 75-year Tensile Strength      | D6992            | psi (MPa)                                  | 1,000 (7) or greater              |