## POLYPROPYLENE [S]

Layfield's supported styles of Polypropylene [PP (S)] combine the unique attributes of the PP polymer formulation with the mechanical strength of a 250 lb polyester scrim. PP (S) brings together two soft, supple PP films laminated onto a reinforcing scrim layer. The resulting geomembrane is strong enough to hang vertically in the form of a baffle curtain or tank liner and durable enough to leave exposed to the elements for many years. $\mathrm{PP}(\mathrm{S})$ is UV stabilized with 2 to $3 \%$ carbon black included in the formulation. This polymer is resistant to surfactants, which can cause environmental stress cracking in HDPE. PP (S) maintains its flexibility at low temperatures, making severe winter installations or service conditions an easy application to resolve.

|  | April 2023 | Polypropylene [S] |  |  |  |
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|  | Style | ASTM | PP 36 (S) | PP 45 (S) | PP 60 (S) |
|  | Thickness (nominal) | D1593 | $\begin{gathered} 36 \mathrm{mil} \\ 0.91 \mathrm{~mm} \end{gathered}$ | $\begin{gathered} 45 \mathrm{mil} \\ 1.14 \mathrm{~mm} \end{gathered}$ | $\begin{gathered} 60 \mathrm{mil} \\ 1.50 \mathrm{~mm} \end{gathered}$ |
|  | Tensile Strength <br> @ Break (MD/CD) | D751 | $\begin{gathered} 200 \mathrm{lbs} \\ 890 \mathrm{~N} \end{gathered}$ | $\begin{aligned} & 250 \mathrm{lbs} \\ & 1,100 \mathrm{~N} \end{aligned}$ | $\begin{aligned} & 250 \mathrm{lbs} \\ & 1,100 \mathrm{~N} \end{aligned}$ |
|  | Elongation | D751 | 25\% | 25\% | 25\% |
|  | Tear Resistance (MD/CD) | D5884 | 80 lbs 356 N | 100 lbs 445 N | 100 lbs 445 N |
|  | Puncture Resistance | D4833 | $\begin{aligned} & 85 \mathrm{lbs} \\ & 380 \mathrm{~N} \end{aligned}$ | $\begin{aligned} & 85 \mathrm{lbs} \\ & 380 \mathrm{~N} \end{aligned}$ | 90 lbs 400 N |
|  | Low Temperature | D2136 | $\begin{aligned} & -40^{\circ} \mathrm{F} \\ & -40^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & -40^{\circ} \mathrm{F} \\ & -40^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & -40^{\circ} \mathrm{F} \\ & -40^{\circ} \mathrm{C} \end{aligned}$ |
|  | Hydrostatic Resistance | D751 <br> Method A | $\begin{gathered} 350 \mathrm{psi} \\ 2.4 \mathrm{mPa} \end{gathered}$ | $\begin{gathered} 390 \mathrm{psi} \\ 2.7 \mathrm{mPa} \end{gathered}$ | 440 psi <br> 3.0 mPa |

