

## PRODUCT DESCRIPTION

HydraFlex™ PP40 is an exceptionally flexible geomembrane, achieved by incorporating high levels of ethylene propylene rubber into polypropylene. HydraFlex™ polypropylene membranes contain no plasticizers that can leach out and hinder long-term flexibility and performance. HydraFlex™ fPP-Series provides outstanding resistance to environmental stress cracking even at elevated temperatures and in addition to aggressive chemical environments.

## PRODUCT USE

HydraFlex™ PP40 is used in a wide variety of applications that require a unique combination of mechanical toughness, exceptional flexibility and environmental resistance. Raven's polypropylene geomembranes meet the requirements of GRI-GM18 standard specifications for flexible polypropylene non-reinforced geomembranes.

HydraFlex™ fPP-Series provides a high-friction angle to increase side slope stability. A low coefficient of thermal expansion significantly reduces wrinkling in a wide range of temperatures. HydraFlex™ PP40 may be considered for containment of leachates from typical Municipal Solid Waste per EPA 9090 testing in addition to black liquor from paper manufacturing.

## SIZE & PACKAGING

HydraFlex™ PP40 is available in up to 40,000 square foot panels. All panels are accordion folded every 5 feet, and tightly rolled onto a heavy-duty core for ease of handling and time-saving installation.



Pond Liner

## PRODUCT

## PART #

HYDRAFLEX™ ..... PP40

## APPLICATIONS

- |                         |                    |
|-------------------------|--------------------|
| Canal Linings           | Evaporation Ponds  |
| Decorative Ponds        | Mine Tailing Ponds |
| Landfill Caps           | Fire Ponds         |
| Waste Lagoon Ponds      | Remediation Liners |
| Golf Course Water Traps | Farm Ponds         |
| Brine Ponds             | Fish Hatcheries    |
| Aquaculture             |                    |

# HYDRAFLEX™ PP40

FLEXIBLE SMOOTH POLYPROPYLENE

		HYDRAFLEX™ PP40			
		IMPERIAL		METRIC	
PROPERTIES	TEST METHOD	MINIMUM	TYPICAL	MINIMUM	TYPICAL
APPEARANCE		Black			
THICKNESS, AVERAGE	ASTM D5199	36 mil	39 mil	0.91 mm	0.99 mm
WEIGHT		160 lbs/msf	183 lbs/msf	781 g/m <sup>2</sup>	893 g/m <sup>2</sup>
TENSILE STRENGTH AT BREAK	ASTM D6693	75 ppi	91 ppi	131 N/cm	159 N/cm
TENSILE ELONGATION AT BREAK	ASTM D6693	700 %	900 %	700 %	900 %
TEAR RESISTANCE	ASTM D1004	12 lbs	14 lbs	53 N	62 N
PUNCTURE RESISTANCE	ASTM D4833	34 lbs	45 lbs	151 N	200 N
MULTIAXIAL ELONGATION AT BREAK	ASTM D5617	120 %	200%	120 %	200 %
CARBON BLACK (BLACK LAYERS ONLY)	ASTM D4218	2.0 - 3.5 %	2.5 %	2.0 - 3.5 %	2.5 %
HYDRAULIC CONDUCTIVITY		1.25 x 10 <sup>-9</sup> cm/sec			
MAXIMUM STATIC USE TEMPERATURE		180° F		82° C	
MINIMUM STATIC USE TEMPERATURE		-70° F		-57° C	



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Note: To the best of our knowledge, unless otherwise stated, these are typical property values and are intended as guides only, not as specification limits. Chemical resistance, odor transmission, longevity as well as other performance criteria is not implied or given and actual testing must be performed for applicability in specific applications and/or conditions. RAVEN INDUSTRIES MAKES NO WARRANTIES AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage. Limited Warranty available at [www.RavenEFD.com](http://www.RavenEFD.com)

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