



**Aqualastic Reinforced – Product Data Sheet (RFPP)
Physical Properties – 36 Mil Reinforced Polypropylene Geomembrane**

Property	Test Method	Certified Value	Typical Value
Gauge, normal mills (mm)	-	36 (0.90)	36 (0.90)
Plies, reinforcing	-	1	1
Thickness minimum 1. Overall mills (mm) 2. Over scrim	ASTM D751 Optical Method	34 (0.86) 11 (0.28)	36 (0.90) 11 (0.28)
Breaking strength-fabric, minimum lbf (kN)	ASTM D 751 Method A	225 (1.0)	275 (1.22)
Low temperature flexibility °F (°C)	ASTM D 2136 1/8" mandrel, 4 hour pass	-40 (-40)	-65 (-54)
Puncture resistance, minimum lbf (kN)	FTMS 101C, Method 2031	300 (1.34)	350 (1.56)
Tear strength, minimum lbf (kN)	ASTM D 5884	55 (0.24)	100 (0.45)
Dimensional stability (% change, maximum)	ASTM D 1204 180 °F/82°C 1 hour	1.0 (1.0)	-0.5 (-0.5)
Hydrostatic resistance, minimum psi (MPa)	ASTM D 751 Method A, Procedure 1	325 (2.2)	375 (2.58)
Ply adhesion, minimum lbs/in (kNm)	ASTM D 413, Machine Method, modified	20 (3.5)	30 (5.25)
Water absorption, maximum % weight change	ASTM D 471 30 days @ 70°F/21°C	<1%	<1%
UV resistance	ASTM G26, Xenon Arc, 80oC/4000 hours	Pass	Pass

ESCR (Environmental Stress Crack Resistance), minimum hours with no failure	ASTM D 1693 3000 hours	Not affected by ESC	Not affected by ESC
TYPICAL FACTORY SEAM PROPERTIES			
Bonded seam strength, minimum 1bf (kN)	ASTM D 751, modified	175 (0.78)	175 (0.78)
Peel adhesion, minimum lbs/in (kNm)	ASTM D 413, modified	20 (3.5) or FTB	20 (3.5) or FTB

Aqualastic Reinforced – Product Data Sheet (RFPP)
Physical Properties – 45 Mil Reinforced Polypropylene Geomembrane

Property	Test Method	Certified Value	Typical Value
Gauge, normal mills (mm)	-	45 (1.14)	45 (1.14)
Plies, reinforcing	-	1	1
Thickness minimum 1. Overall mils (mm) 2. Over scrim mils (mm)	ASTM D751 Optical Method	41 (1.04) 11 (0.28)	44 (1.12) 12 (0.30)
Breaking strength-fabric, minimum lbf (kN)	ASTM D 751 Method A	225 (1.0)	300 (1.34)
Low temperature flexibility °F (°C)	ASTM D 2136 1/8" mandrel, 4 hour pass	-40 (-40)	-65 (-54)
Puncture resistance, minimum lbs (kN)	FTMS 101C, Method 2031	350 (1.56)	400 (1.78)
Tear strength, minimum lbf (kN)	ASTM D 5884	55 (0.24)	100 (0.45)
Dimensional stability (% change, max)	ASTM D 1204 180 °F/82°C 1 hour	1.0	-0.5 (-0.5)
Hydrostatic resistance, minimum psi (MPa)	ASTM D 751 Method A, Procedure 1	350 (2.4)	400 (2.75)
Ply adhesion, minimum lbs/in (kNm)	ASTM D 413, Machine Method, modified	20 (3.5)	30 (5.25)
Water absorption, (maximum % weight change)	ASTM D 471 30 days @ 70°F/21°C	<1%	<1%
UV resistance	ASTM G26, Xenon Arc, 80oC/4000 hours	Pass	Pass
ESCR (Environmental Stress Crack Resistance), minimum hours with no failure	ASTM D 1693 3000 hours	Not affected by ESC	Not affected by ESC

TYPICAL FACTORY SEAM PROPERTIES

Bonded seam strength, minimum 1bf (kN)	ASTM D 751, modified	200 (0.89)	200 (0.89)
Peel adhesion, minimum lbs/in (kNm)	ASTM D 413, modified	20 (3.5) or FTB	20 (3.5) or FTB

**Aqualastic Reinforced – Product Data Sheet (RFPP)
Physical Properties – 60 Mil Reinforced Polypropylene Geomembrane**

Property	Test Method	Certified Value	Typical Value
Gauge, normal mills (mm)	-	60 (1.52)	60 (1.52)
Plies, reinforcing	-	1	1
Thickness minimum 1. Overall mils (mm) 2. Over scrim mils (mm)	ASTM D751 Optical Method	54 (1.37) 11 (0.28)	57 (1.45) 18 (0.46)
Breaking strength-fabric, minimum lbf (kN)	ASTM D 751 Method A	250 (1.11)	325 (1.45)
Low temperature flexibility °F (°C)	ASTM D 2136 1/8" mandrel, 4 hour pass	-40 (-40)	-65 (-54)
Puncture resistance, minimum lbs (kN)	FTMS 101C, Method 2031	375 (1.67)	425 (1.89)
Tear strength, minimum lbf (kN)	ASTM D 5884	55 (0.24)	100 (0.45)
Dimensional stability (% change, maximum)	ASTM D 1204 180 °F/82°C 1 hour	1.0 (1.0)	-0.5 (-0.5)
Hydrostatic resistance, minimum psi (MPa)	ASTM D 751 Method A, Procedure 1	375 (2.58)	425 (2.93)
Ply adhesion, minimum lbs/in (kNm)	ASTM D 413, Machine Method, modified	20 (3.5)	30 (5.25)
Water absorption, maximum (% weight change)	ASTM D 471 30 days @ 70°F/21°C	<1% (<1%)	<1%
UV resistance	ASTM G26, Xenon Arc, 80oC/4000 hours	Pass	Pass
ESCR (Environmental Stress Crack Resistance), minimum hours with no failure	ASTM D 1693 3000 hours	Not affected by ESC	Not affected by ESC
TYPICAL FACTORY SEAM PROPERTIES			

Bonded seam strength, minimum 1bf (kN)	ASTM D 751, modified	220 (0.98)	220 (0.98)
Peel adhesion, minimum lbs/in (kNm)	ASTM D 413, modified	20 (3.5) or FTB	20 (3.5) or FTB

PO Box 633, Isando 1600, South Africa aqua@aquatan.co.za	Tel: +27 11 974 5271	E-mail:
10 Diesel Road, Isando 1600, South Africa www.aquatan.co.za	Fax: +27 11 974 4111	Website: