

AAG GEOMEMBRANE

8228 - technical data sheet



Property	Test Method	8228
Base Fabric Type Base Fabric Weight	ASTM D 751	Polyester 3.0 oz/yd ² nominal (102 g/m ² nominal)
Thickness	ASTM D 751	30.0 mils nominal (0.76 mm min.)
Weight	ASTM D 751	28.0 ± 2.0 oz/yd ² (950 ± 70 g/sq. m)
Tear Strength	ASTM D 751 Trap Tear	30/30 lb. min. (133/133 N min.)
Breaking Yield Strength	ASTM D 751 Grab Tensile	250/200 lb. min. (1,110/890 N min.)
Low Temperature Resistance	ASTM D 2136 4hrs-1/8in Mandrel	Pass @ -25° F (Pass @ -32° C)
Dimensional Stability	ASTM D 1204 212°F/100° C-1 hr.	5% max. each direction
Hydrostatic Resistance	ASTM D 751 Method A	300 psi min. (2.07 MPa min.)
Blocking Resistance	ASTM D 751 180° F/82° C	#2 Rating max.
Adhesion-Ply	ASTM D 413 Type A	15 lb./in. min. or film tearing bond (13 daN/5 cm min. or FTB)
Adhesion-Heat Welded Seam	ASTM D 751 Dielectric Weld	10 lb./in. min. (9.0 daN/5 cm min.)
Dead Load Seam Strength	ASTM D 751 4-Hour Test	Pass 100 lb./in. @ 70° F (Pass 445 N/2.54 cm @ 21° C) Pass 50 lb./in. @ 160° F (Pass 220 N/2.54 cm @ 70° C)
Bonded Seam Strength	ASTM D 751 Procedure A, Grab Test Method	550 lb. min. (2,450 N min.)
Abrasion Resistance	ASTM D 3389 H-18 Wheel 1 kg Load	2,000 cycles min. before fabric exposure, 50 mg/100 cycles max. weight loss
Weathering Resistance	ASTM G 153	8,000 hours min. with no appreciable change or stiffening or cracking of coating
Water Absorption	ASTM D 471, Section 12 7 Days	0.025 kg/m ² max. @ 70° F/21° C 0.14 kg/m ² max @ 212° F/100° C
Wicking	ASTM D 751	1/8in max. (0.3 cm max.)
Bursting Strength	ASTM D 751 Ball Tip	350 lb. min. (1,557 N min.)
Puncture Resistance	ASTM D 4833	50 lb. min. (225 N min.)
Coefficient of Thermal Expansion/Contraction	ASTM D 696	8 x 10 ⁻⁶ in/in/° F max. (1.4 x 10 ⁻⁵ cm/cm/° C max.)
Puncture Resistance	FTMS 101C Method 2031	205 lb. approx.
Environmental/Chemical Resistance Properties	ASTM D 741 7-day Total Immersion with Exposed Edges	Crude oil 5% max. weight gain Diesel fuel 5% max. weight gain

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0318-8318 - technical data sheet

Property	Test Method	0318	8318
Base Fabric Type Base Fabric Weight	ASTM D 751	Polyester 6.5 oz/yd ² nominal (220 g/m ² nominal)	Polyester 6.5 oz/yd ² nominal (220 g/m ² nominal)
Thickness	ASTM D 751	30.0 mils nominal (0.76 mm min.)	40.0 mils nominal (1 mm min.)
Weight	ASTM D 751	30.0 ± 2.0 oz/yd ² (1017 ± 2 g/sq. m)	38.0 ± 2.0 oz/yd ² (1288 ± 2 g/sq. m)
Tear Strength	ASTM D 751 Trap Tear	40/55 lb. min. (175/245 N min.)	40/55 lb. min. (175/245 N min.)
Breaking Yield Strength	ASTM D 751 Grab Tensile	550/550 lb. min. (2,448/2,448 N min.)	550/550 lb. min. (2,448/2,448 N min.)
Low Temperature Resistance	ASTM D 2136 4hrs-1/8in Mandrel	Pass @ -30° F (Pass @ -34° C)	Pass @ -30° F (Pass @ -34° C)
Dimensional Stability	ASTM D 1204 212°F/100° C-1 hr.	0.5% max. each direction	0.5% max. each direction
Hydrostatic Resistance	ASTM D 751 Method A	800 psi min. (5.51 MPa min.)	800 psi min. (5.51 MPa min.)
Blocking Resistance	ASTM D 751 180° F/82° C	#2 Rating max.	#2 Rating max.
Adhesion-Ply	ASTM D 413 Type A	15 lb./in. min. or film tearing bond (13 daN/5 cm min. or FTB)	15 lb./in. min. or film tearing bond (13 daN/5 cm min. or FTB)
Adhesion-Heat Welded Seam	ASTM D 751 Dielectric Weld	40 lb./2in. min. (17.5 daN/5 cm min.)	40 lb./2in. min. (17.5 daN/5 cm min.)
Dead Load Seam Strength	ASTM D 751 4-Hour Test	Pass 240 lb./in. @ 70° F (Pass 1,068 N/2.54 cm @ 21° C) Pass 120 lb./in. @ 160° F (Pass 534 N/2.54 cm @ 70° C)	Pass 240 lb./in. @ 70° F (Pass 1,068 N/2.54 cm @ 21° C) Pass 120 lb./in. @ 160° F (Pass 534 N/2.54 cm @ 70° C)
Bonded Seam Strength	ASTM D 751 Procedure A, Grab Test Method	550 lb. min. (2,450 N min.)	550 lb. min. (2,450 N min.)
Abrasion Resistance	ASTM D 3389 H-18 Wheel 1 kg Load	2,000 cycles min. before fabric exposure, 50 mg/100 cycles max. weight loss	2,000 cycles min. before fabric exposure, 50 mg/100 cycles max. weight loss
Weathering Resistance	ASTM G 153	8,000 hours min. with no appreciable change or stiffening or cracking of coating	8,000 hours min. with no appreciable change or stiffening or cracking of coating
Water Absorption	ASTM D 471, Section 12 7 Days	0.025 kg/m ² max. @ 70° F/21° C 0.14 kg/m ² max @ 212° F/100° C	0.025 kg/m ² max. @ 70° F/21° C 0.14 kg/m ² max @ 212° F/100° C
Wicking	ASTM D 751	1/8in max. (0.3 cm max.)	1/8in max. (0.3 cm max.)
Bursting Strength	ASTM D 751 Ball Tip	750 lb. min. (3,330 N min.)	750 lb. min. (3,330 N min.)
Puncture Resistance	ASTM D 4833	275 lb. min. (1,200 N min.)	275 lb. min. (1,200 N min.)
Coefficient of Thermal Expansion/Contraction	ASTM D 696	8 x 10 ⁻⁶ in/in/° F max. (1.4 x 10 ⁻⁵ cm/cm/° C max.)	8 x 10 ⁻⁶ in/in/° F max. (1.4 x 10 ⁻⁵ cm/cm/° C max.)
Puncture Resistance	FTMS 101C Method 2031	350 lb. approx. (1550N approx.)	350 lb. approx. (1550N approx.)
Environmental/Chemical Resistance Properties	ASTM D 741 7-day Total Immersion with Exposed Edges	See Chemical Resistance Table	See Chemical Resistance Table

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0318PW-8228PW - technical data sheet

Property	Test Method	0318PW	8228PW
Base Fabric Type Base Fabric Weight	ASTM D 751	Polyester 6.5 oz/yd ² nominal (220 g/m ² nominal)	Polyester 3.0 oz/yd ² nominal (100 g/m ² nominal)
Thickness	ASTM D 751	30 mils min. (0.76 mm min.)	30 mils min. (0.76 mm min.)
Weight	ASTM D 751	30.0 +- 2 oz./sq. yd. (1017 +- 70 g/sq. m)	28.0 +- 2 oz./sq. yd. (950 +- 70 g/sq. m)
Tear Strength	ASTM D 751 Trap Tear	40/55 lbs. min. (175/245 N min.)	30/30 lbs. nom. (133/133 N nom.)
Breaking Yield Strength	ASTM D 751 Grab Tensile	550/550 lbs. min. (2,447/2,447 N min.)	250/200 lbs. min. (1,110/890 N min.)
Low Temperature Resistance	ASTM D 2136 4hrs-1/8" Mandrel	Pass @ -30° F (Pass @ -35° C)	Pass @ -25° F (Pass @ -32° C)
Dimensional Stability	ASTM D 1204 100° C-1 hr.	0.5% max. each direction	5% max. each direction
Hydrostatic Resistance	ASTM D 751 Method A	800 psi min. (5.51 MPa min.)	300 psi min. (2.07 MPa min.)
Blocking Resistance	ASTM D 751 180° F	#2 Rating max.	#2 Rating max.
Adhesion-Ply	ASTM D 413 Type A	15 lbs./in. min. or film tearing bond (13 daN/5 cm min. or FTB)	12 lbs./in. (approx.) (10 daN/5 cm approx.)
Adhesion- Heat Welded Seam	ASTM D 751 Dielectric Weld	40 lbs./2in. min. (17.5 daN/5 cm min.)	10 lbs./in min. (9 daN/5 cm min.)
Dead Load Seam Strength	ASTM D 751 4-Hour Test	Pass 240 lbs./in. @ 70° F (Pass 980 N/2.54 cm @ 21° C) Pass 120 lbs./in. @ 160° F (Pass 534 N/2.54 cm @ 70° C)	Pass 100 lbs/in @ 70° F (Pass 445 N @ 21° C) Pass 50 lb @ 160° F (Pass 220 N @ 70° C)
Bonded Seam Strength	ASTM D 751 Procedure A, Grab Test Method	550 lbs. min. (2,450 N min.)	250 lbs. (approx.) (1,112 N min.)
Abrasion Resistance	ASTM D 3389 H-18 Wheel 1 kg Load	2000 cycles min. before fabric exposure, 50 mg/100 cycles max. weight loss	2000 cycles min.
Weathering Resistance	ASTM G 153	8000 hours min. with no appreciable change or stiffening or cracking of coating	8000 hours min.
Water Absorption	ASTM D 471, Section 12 7 Days	0.025 kg/m ² max. @ 70° F/21° C 0.14 kg/m ² max @ 212° F/100° C	0.05 kg/m ² max. @ 70° F/21° C (approx.) 0.28 kg/m ² max. @ 212° F/100° C (approx.)
Wicking	ASTM D 751	1/8" max. (0.3 cm max.)	1/8" max. (0.3 cm max.)
Bursting Strength	ASTM D 751 Ball Tip	750 lbs. min. (3330 N min.)	350 lbs. (approx.) (1557 N min.)
Puncture Resistance	ASTM D 4833	275 lbs. min. (1200 N min.)	50 lb typ. (225 N typ.)
Coefficient of Thermal Expansion/ Contraction	ASTM D 696	8 x 10 ⁻⁶ in/in/° F max. (1.4 x 10 ⁻⁵ cm/cm/° C max.)	8 x 10 ⁻⁶ in/in/° F max. (approx.) (1.4 x 10 ⁻⁵ cm/cm/° C max. approx.)
Puncture Resistance	FTMS 101C Method 2031	350 lbs. (approx.)	205 lbs. (approx.)

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2418PW - technical data sheet



Property	Test Method	2418PW
Base Fabric Type Base Fabric Weight	ASTM D 751	Polyester 6.5 oz/yd ² nominal (220 g/m ² nominal)
Thickness	ASTM D 751	45 mils nominal (1.13 mm min.)
Weight	ASTM D 751	42.0 ± 2.0 oz/yd ² (1424 ± 70 g/sq. m)
Tear Strength	ASTM D 751 Trap Tear	40/55 lb. min. (175/245 N min.)
Breaking Yield Strength	ASTM D 751 Grab Tensile	550/550 lb. min. (2,447/2,447 N min.)
Low Temperature Resistance	ASTM D 2136 4hrs-1/8in Mandrel	Pass @ -30° F (Pass @ -35° C)
Dimensional Stability	ASTM D 1204 212°F/100° C-1 hr.	0.5% max. each direction
Hydrostatic Resistance	ASTM D 751 Method A	800 psi min. (5.51 MPa min.)
Blocking Resistance	ASTM D 751 180° F/82° C	#2 Rating max.
Adhesion-Ply	ASTM D 413 Type A	15 lb./in. min. or film tearing bond (13 daN/5 cm min. or FTB)
Adhesion- Heat Welded Seam	ASTM D 751 Dielectric Weld	40 lb./2in. min. (17.5 daN/5 cm min.)
Dead Load Seam Strength	ASTM D 751 4-Hour Test	Pass 240 lb./in. @ 70° F (Pass 1,068 N/2.54 cm @ 21° C) Pass 120 lb./in. @ 160° F (Pass 534 N/2.54 cm @ 70° C)
Bonded Seam Strength	ASTM D 751 Procedure A, Grab Test Method	550 lb. min. (2,450 N min.)
Abrasion Resistance	ASTM D 3389 H-18 Wheel 1 kg Load	2,000 cycles min. before fabric exposure, 50 mg/100 cycles max. weight loss
Weathering Resistance	ASTM G 153	8,000 hours min. with no appreciable change or stiffening or cracking of coating
Water Absorption	ASTM D 471, Section 12 7 Days	0.025 kg/m ² max. @ 70° F/21° C 0.14 kg/m ² max @ 212° F/100° C
Wicking	ASTM D 751	1/8in max. (0.3 cm max.)
Bursting Strength	ASTM D 751 Ball Tip	750 lb. min. (3,330 N min.)
Puncture Resistance	ASTM D 4833	275 lb. min. (1,200 N min.)
Coefficient of Thermal Expansion/Contraction	ASTM D 696	8 x 10 ⁻⁶ in/in/° F max. (1.4 x 10 ⁻⁵ cm/cm/° C max.)
Puncture Resistance	FTMS 101C Method 2031	350 lb. (approx.)
Environmental/Chemical Resistance Properties	ASTM D 741 7-day Total Immersion with Exposed Edges	NSF 61 approved for potable water