



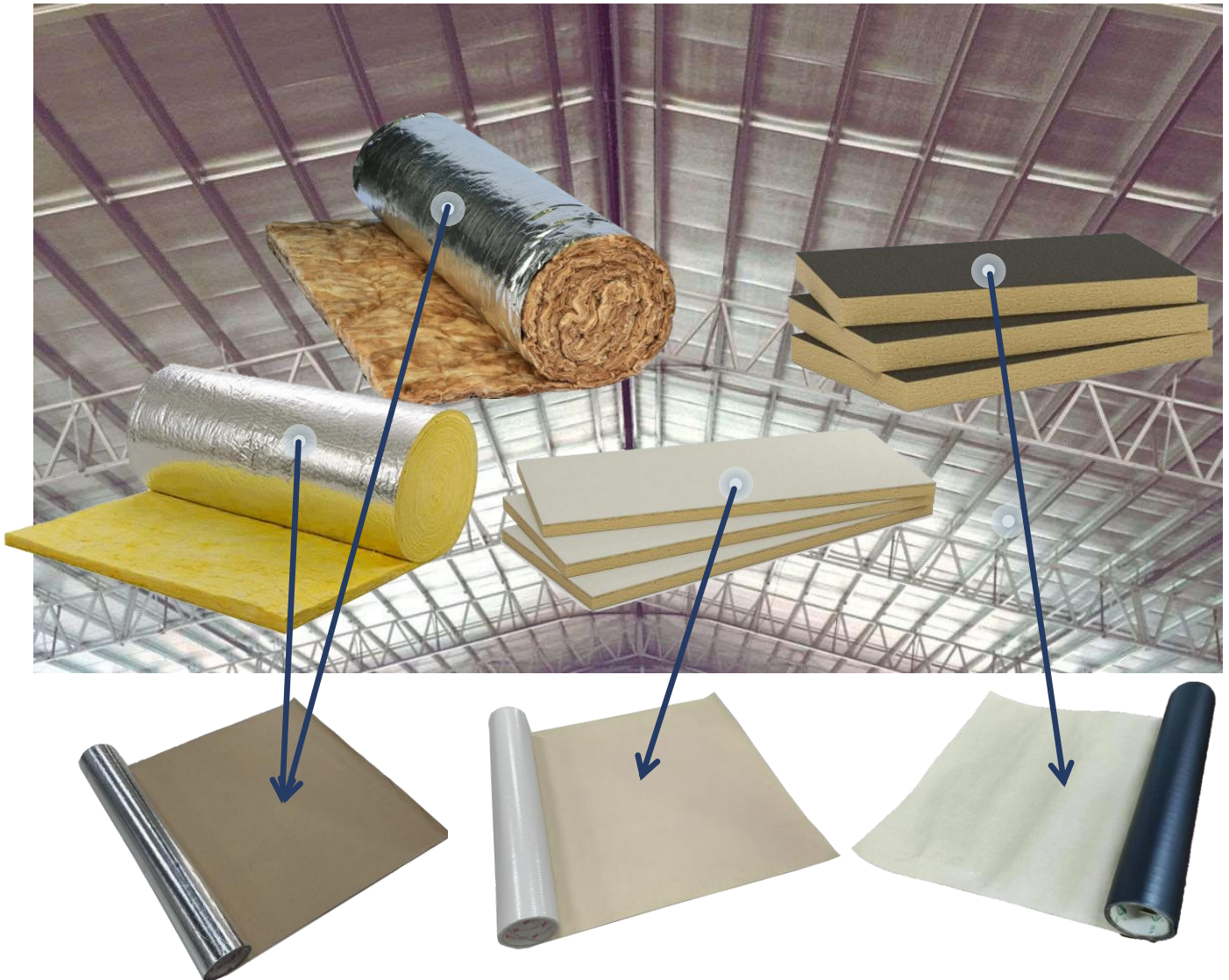
Insulation Facings

Selection Guide



Arkent[®]

Typical Applications



As an accessory for insulations, facings are usually used in laminating with glass wool or rock wool as the entire insulation layer. They are mainly used in steel structure maintenance, air conditioning ducts, smoke exhaust ducts, industrial insulation, etc.

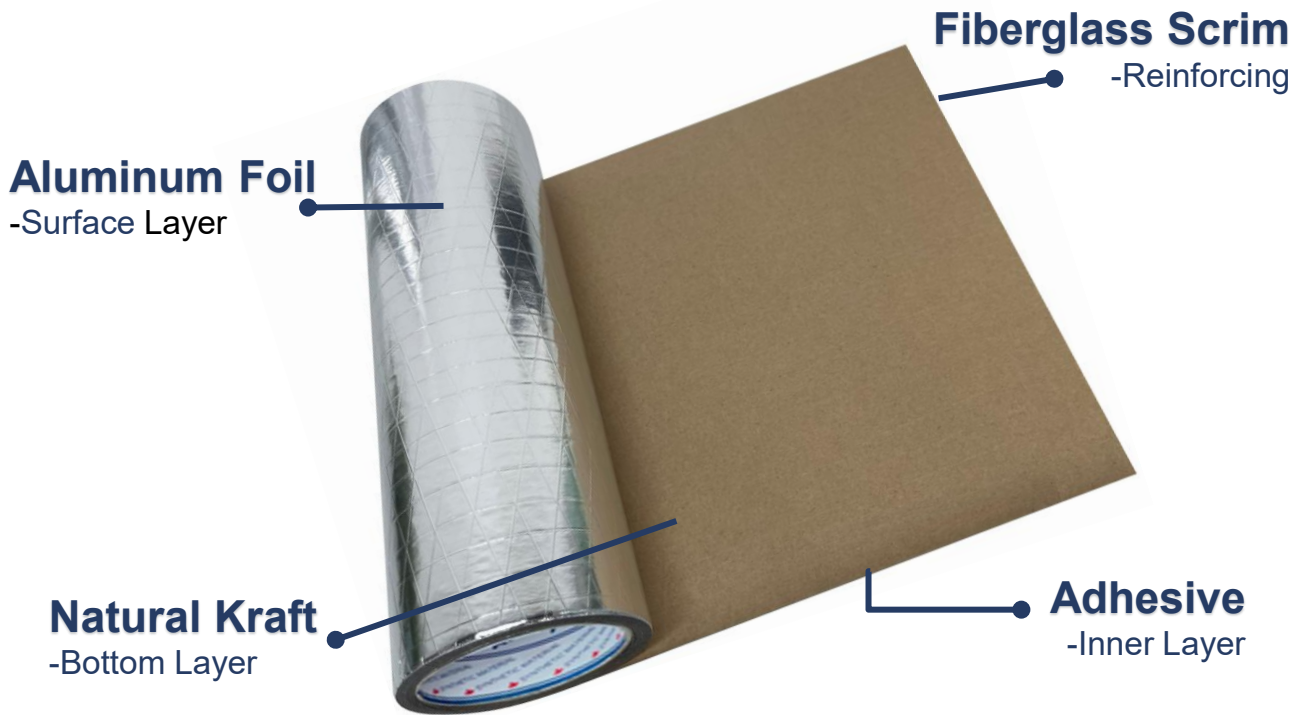


Build safer structures; create lasting energy efficiency

-- Founder of Ark

Ark^{nt}® ARK-F40

CONSTRUCTION:



ARK-F40 offers excellent anti-oxidation and corrosion resistance.

SAMPLE:





VAPOUR BARRIER SYSTEM

Foil / Scrim / Kraft (ARK-F40)

FACING COMPOSITION	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
Foil	Aluminum	0.0003 inch	6.5 micron
Adhesive	Flame Resistant		
Reinforcing	Tri-Directional Fiberglass	2 / inch (MD) 3 / inch (XD)	8 / 100mm (MD) 12 / 100mm (XD)
Kraft	Natural	31 lbs / 3000 ft ²	50 g/m ²

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
Basis Weight	Scale	18 lbs / 1000 ft ²	87 g/m ²
Permeance (WVTR)	ASTME96/ProcedureA	0.02 perm	1.15 ng/N.s
Tensile Strength	ASTM C1136	45 lbs/inch (MD) 39 lbs/inch (XD)	7.9 kN/m (MD) 6.9 kN/m (XD)
Bursting Strength	ASTM D774	45 psi	3.1 kg/cm ²
Thickness	Micrometer Caliper	0.008 inch	200 micron
Fire Rating	ASTM E84	Class B	Class B
Accelerated Aging	ASTM C1258 30 Days @ 95% RH, 120°F (49°C)	No Corrosion No Delamination	No Corrosion No Delamination
Low Temperature Resistance	ASTM D1790 -40°F (-40°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
High Temperature Resistance	4 hours @ 240°F (116°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
Water Immersion	24 hours @ 73°F (23°C)	No Delamination	No Delamination
Dimensional Stability	ASTM D1204	0.5%	0.5%
Emissivity	ASTM E408	0.03	0.03

TECHNICAL SERVICES

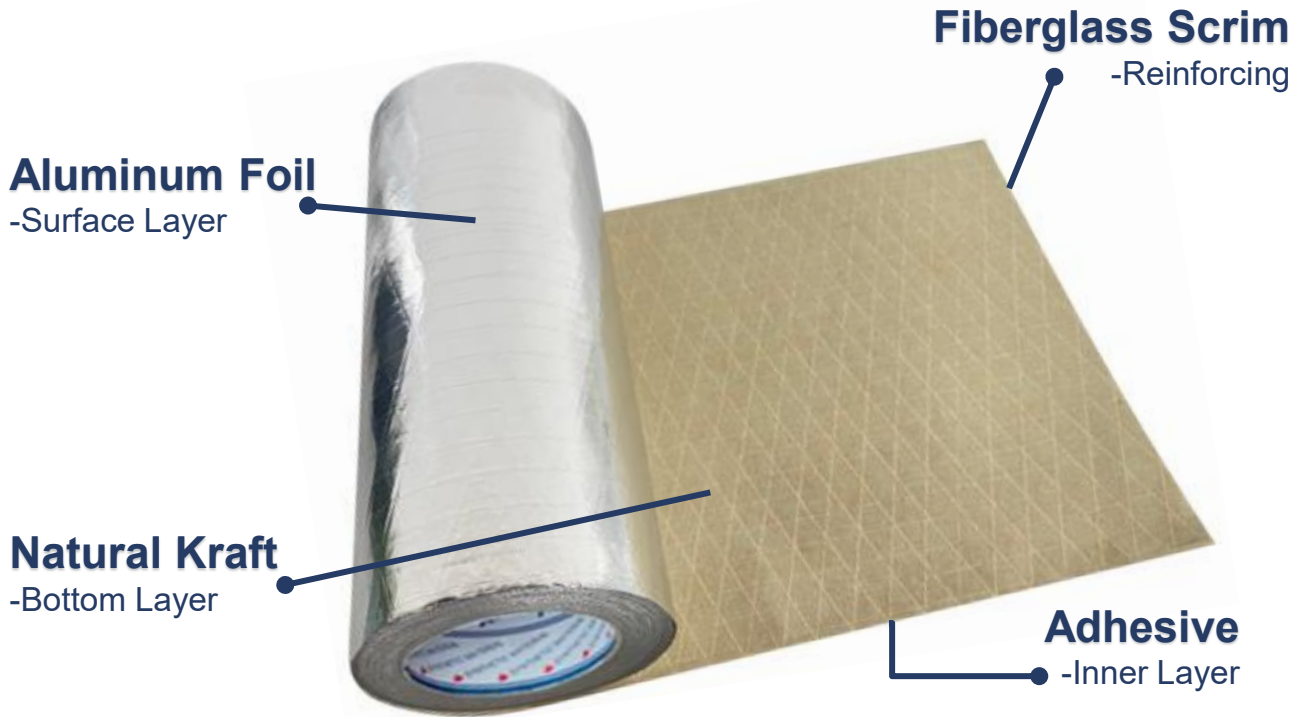
Tel: +1 7783251557

info@arksynthetics.com

www.arksynthetics.com

Ark^{nt}® ARK-F50

CONSTRUCTION:



ARK-F50 provides outstanding resistance to oxidation, corrosion, and bursting resistance.

SAMPLE:



VAPOUR BARRIER SYSTEM

Foil / Scrim / Kraft (ARK-F50)

FACING COMPOSITION	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
Foil	Aluminum	0.0003 inch	6.5 micron
Adhesive	Flame Resistant		
Reinforcing	Tri-Directional Fiberglass	2 / inch (MD) 3 / inch (XD)	8 / 100mm (MD) 12 / 100mm (XD)
Kraft	Natural	43 lbs / 3000 ft ²	70 g/m ²

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
Basis Weight	Scale	20 lbs / 1000 ft ²	93 g/m ²
Permeance (WVTR)	ASTME96/ProcedureA	0.02 perm	1.15 ng/N.s
Tensile Strength	ASTM C1136	31 lbs/inch (MD) 17 lbs/inch (XD)	5.5 kN/m (MD) 3 kN/m (XD)
Bursting Strength	ASTM D774	26 psi	1.8 kg/cm ²
Thickness	Micrometer Caliper	0.006 inch	160 micron
Fire Rating	ASTM E84	Class A	Class A
Accelerated Aging	ASTM C1258 30 Days @ 95% RH, 120°F (49°C)	No Corrosion No Delamination	No Corrosion No Delamination
Low Temperature Resistance	ASTM D1790 -40°F (-40°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
High Temperature Resistance	4 hours @ 240°F (116°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
Water Immersion	24 hours @ 73°F (23°C)	No Delamination	No Delamination
Dimensional Stability	ASTM D1204	0.5%	0.5%
Emissivity	ASTM E408	0.03	0.03

TECHNICAL SERVICES

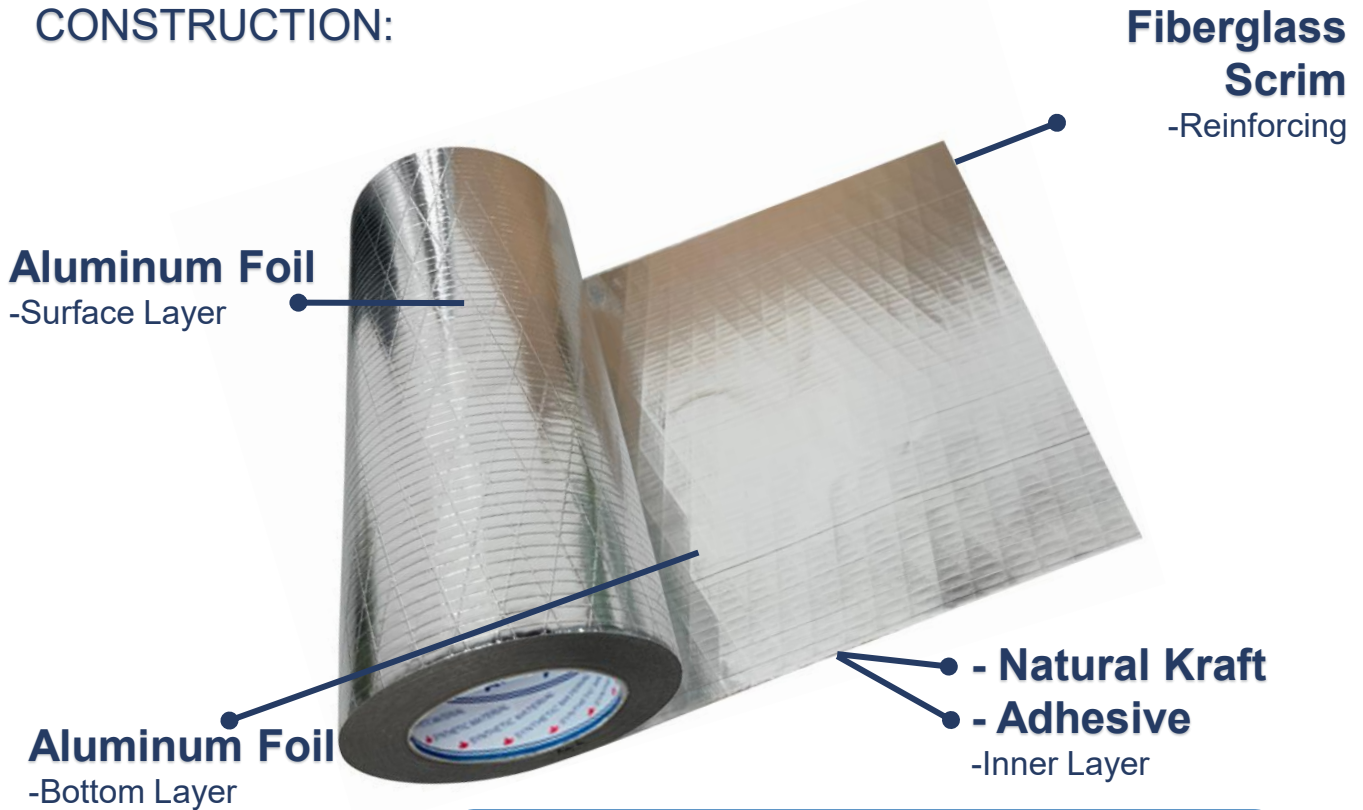
Tel: +1 7783251557

info@arksynthetics.com

www.arksynthetics.com

Ark^{nt}® ARK-F80LD

CONSTRUCTION:



ARK-F80LD is anti-oxidative and corrosion-resistant, compliant with Australian Standard 1530.2 for flame retardancy and AS/NZS 4200 for tensile classification.

SAMPLE:





VAPOUR BARRIER SYSTEM

Foil / Scrim / Kraft / Foil (ARK-F80LD)

FACING COMPOSITION	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
Foil	Aluminum	0.0003 inch	6.5 micron
Adhesive	Flame Resistant		
Reinforcing	Tri-Directional Fiberglass	5 / inch (MD) 4 / inch (XD)	20 / 100mm (MD) 16 / 100mm (XD)
Kraft	Natural	49 lbs / 3000 ft ²	80 g/m ²
Foil	Aluminum	0.0003 inch	6.5 micron

PHYSICAL PROPERTIES	TEST METHOD	VALUES	REQUIREMENT
Flammability Index	AS 1530.2-1993	≤ 5 (Low)	High (> 5) / Low (≤ 5)
Basis Weight	Scale	145 g/m ²	Value
Nominal Thickness	Caliper	0.23 mm	Value
Duty	AS/NZS 4200.1:2017	Heavy Duty	Classification
Edge Tear Resistance	AS/NZS 4200.1:2017	60 N (MD) 57 N (LD)	> 45 N > 45 N
Tensile Strength	AS 1301.448s-91	≥ 10.4 kN/m (MD) 6.37 kN/m (LD)	> 7.5 kN/m (MD) > 4.5 kN/m (XD)
Vapour Control	ASTM E96	Class 1 Vapour Barrier	Class 1 to 4
Vapour Permeance	ASTM E96	1.15 ng/N.s	Value
Water Control	AS/NZS 4201.4:1994	Water Barrier	Classification
Air Control	AS/NZS 4200.1:2017	Air Barrier	Classification
Resistance to Dry Delamination	AS/NZS 4201.1:1994	Pass	Pass
Resistance to Wet Delamination	AS/NZS 4201.2:1994	Pass	Pass
Shrinkage (Repeated wetting & drying)	AS/NZS 4201.3:1994	0.0%	< 0.5%
Electrical Conductivity	AS/NZS 4200.1:2017	Conductive	Classification
Emittance Classification	AS/NZS 4200.1:2017	Reflective	Classification

TECHNICAL SERVICES

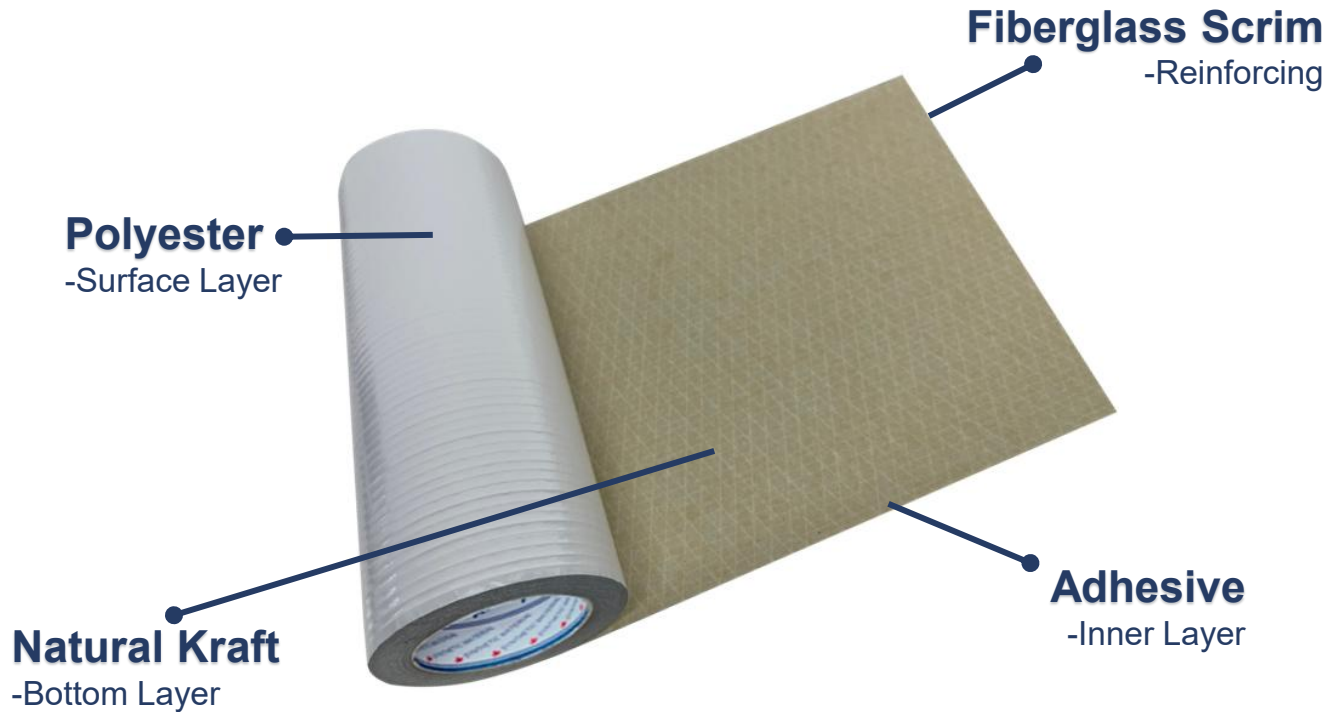
Tel: +1 7783251557

info@arksynthetics.com

www.arksynthetics.com

Ark^{nt}® ARK-W20

CONSTRUCTION:



ARK-W20 is corrosion-resistant, long-lasting in flame retardancy, and performs well under high and low temperatures.

SAMPLE:





VAPOUR BARRIER SYSTEM

Polyester / Scrim / Kraft (ARK-W20)

FACING COMPOSITION	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
White Film	FR Polyester	13 lbs / 3000 ft ²	21 g/m ²
Adhesive	Flame Resistant		
Reinforcing	Tri-Directional Fiberglass	5 / inch (MD) 5 / inch (XD)	20 / 100mm (MD) 20 / 100mm (XD)
Kraft	Natural	15 lbs / 3000 ft ²	25 g/m ²

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
Basis Weight	Scale	18 lbs / 1000 ft ²	87 g/m ²
Permeance (WVTR)	ASTME96/ProcedureA	0.09 perm	5.1 ng/N.s
Tensile Strength	ASTM D828	41 lbs/inch (MD) 38 lbs/inch (XD)	7.2 kN/m (MD) 6.6 kN/m (XD)
Thickness	Micrometer Caliper	0.006 inch	160 micron
Fire Rating	ASTM E84	Class B	Class B
Accelerated Aging	ASTM C1258 30 Days @ 95% RH, 120°F (49°C)	No Corrosion No Delamination	No Corrosion No Delamination
Low Temperature Resistance	ASTM C1263 4 Hours at -20°F (-29°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
High Temperature Resistance	ASTM C1263 Modified 4 hours at 240°F (116°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
Water Immersion	24 hours @ 73°F (23°C)	No Delamination	No Delamination
Dimensional Stability	ASTM D1204	0.25%	0.25%
Light Reflectance	ASTM C523	85%	85%

TECHNICAL SERVICES

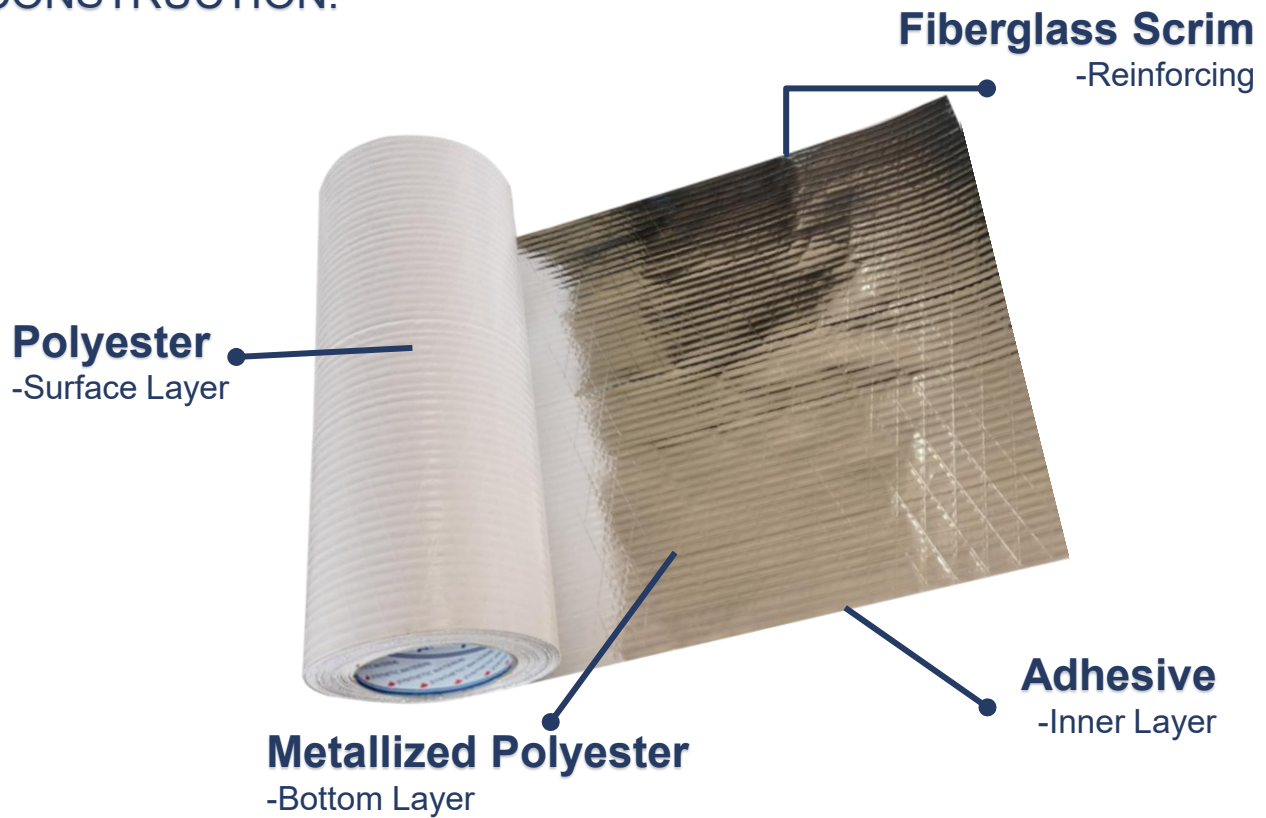
Tel: +1 7783251557

info@arksynthetics.com

www.arksynthetics.com

Ark^{nt}® ARK-W40

CONSTRUCTION:



ARK-W40 is non-paper based, anti-oxidation, corrosion-resistant, and maintains long-lasting flame-retardant performance.

SAMPLE:





VAPOUR BARRIER SYSTEM

Polyester / Scrim / Polyester (ARK-W40)

FACING COMPOSITION	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
White Film	FR Polyester	13 lbs / 3000 ft ²	21 g/m ²
Adhesive	Flame Resistant		
Reinforcing	Tri-Directional Fiberglass	5 / inch (MD) 4 / inch (XD)	20 / 100mm (MD) 16 / 100mm (XD)
Film	Metallized Polyester	0.0005 inch	12.7 micron

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
Basis Weight	Scale	16 lbs / 1000 ft ²	80 g/m ²
Permeance (WVTR)	ASTME96/ProcedureA	0.02 perm	1.15 ng/N.s
Tensile Strength	ASTM D828	40 lbs/inch (MD) 31 lbs/inch (XD)	7.0 kN/m (MD) 5.4 kN/m (XD)
Thickness	Micrometer Caliper	0.006 inch	155 micron
Fire Rating	ASTM E84	Class B	Class B
Accelerated Aging	ASTM C1258 30 Days @ 95% RH, 120°F (49°C)	No Corrosion No Delamination	No Corrosion No Delamination
Low Temperature Resistance	ASTM C1263 4 Hours at -20°F (-29°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
High Temperature Resistance	ASTM C1263 Modified 4 hours at 240°F (116°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
Water Immersion	24 hours @ 73°F (23°C)	No Delamination	No Delamination
Dimensional Stability	ASTM D1204	0.25%	0.25%
Light Reflectance	ASTM C523	85%	85%

TECHNICAL SERVICES

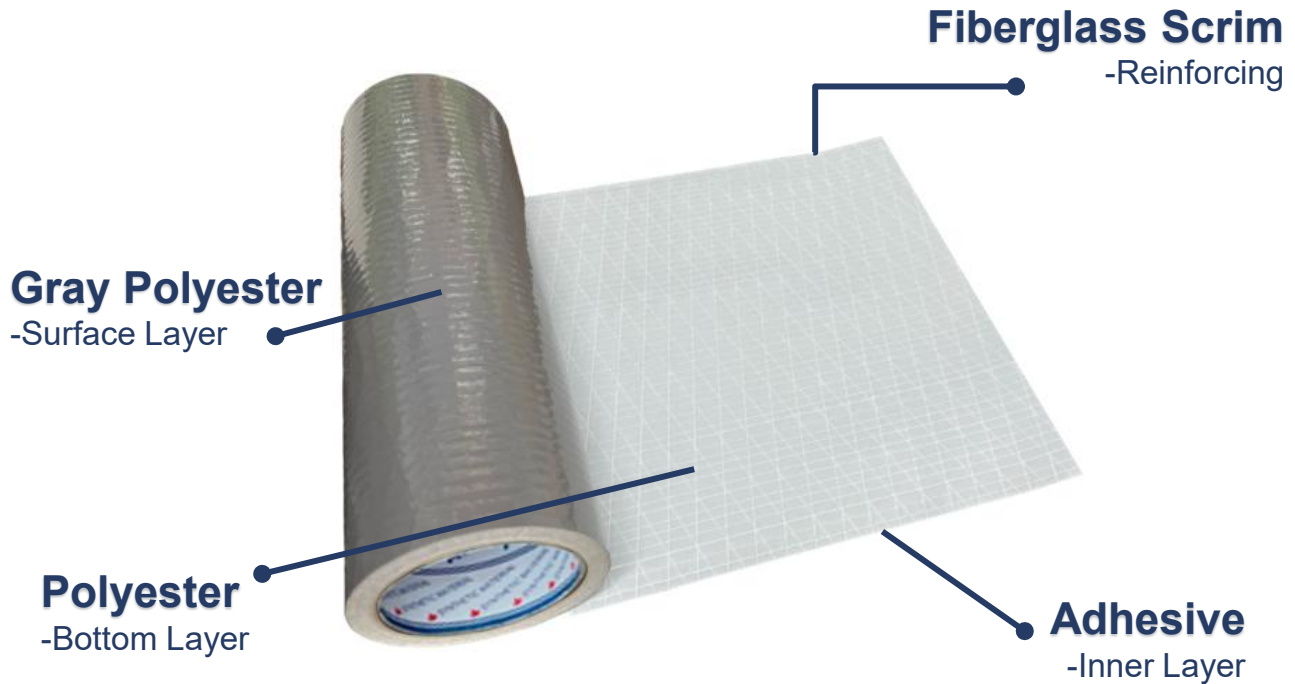
Tel: +1 7783251557

info@arksynthetics.com

www.arksynthetics.com

Ark^{nt}® ARK-W55

CONSTRUCTION:



ARK-W55 is non-paper based, corrosion-resistant, anti-aging and maintains long-lasting flame-retardant performance.

SAMPLE:





VAPOUR BARRIER SYSTEM

Polyester / Scrim / Polyester (ARK-W55)

FACING COMPOSITION	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
Gray Film	FR Polyester	6 lbs / 3000 ft ²	10 g/m ²
Adhesive	Flame Resistant		
Reinforcing	Tri-Directional Fiberglass	5 / inch (MD) 4 / inch (XD)	20 / 100mm (MD) 16 / 100mm (XD)
White Film	FR Polyester	13 lbs / 3000 ft ²	21 g/m ²

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
Basis Weight	Scale	14 lbs / 1000 ft ²	68 g/m ²
Permeance (WVTR)	ASTME96/ProcedureA	0.02 perm	1.15 ng/N.s
Tensile Strength	ASTM D828	36 lbs/inch (MD) 31 lbs/inch (XD)	6.3 kN/m (MD) 5.4 kN/m (XD)
Thickness	Micrometer Caliper	0.005 inch	135 micron
Fire Rating	ASTM E84	Class B	Class B
Accelerated Aging	ASTM C1258 30 Days @ 95% RH, 120°F (49°C)	No Corrosion No Delamination	No Corrosion No Delamination
Low Temperature Resistance	ASTM C1263 4 Hours at -20°F (-29°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
High Temperature Resistance	ASTM C1263 Modified 4 hours at 240°F (116°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
Water Immersion	24 hours @ 73°F (23°C)	No Delamination	No Delamination
Dimensional Stability	ASTM D1204	0.25%	0.25%
Light Reflectance	ASTM C523	85%	85%

TECHNICAL SERVICES

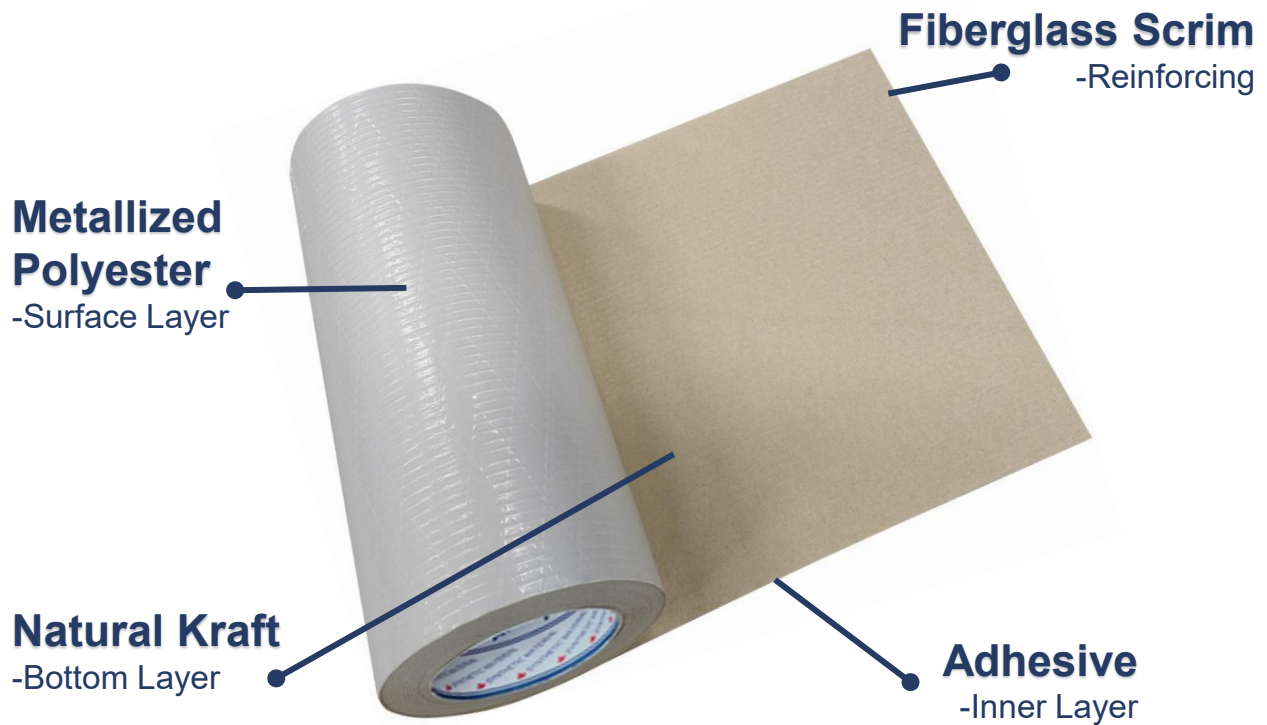
Tel: +1 7783251557

info@arksynthetics.com

www.arksynthetics.com

Ark^{nt}® ARK-W30ILD

CONSTRUCTION:



ARK-W30ILD delivers corrosion resistance, durable flame retardancy, and performs well under high and low temperatures.

SAMPLE:



VAPOUR BARRIER SYSTEM

Polyester / Scrim / Kraft (ARK-W30ILD)

FACING COMPOSITION	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
White Film	Metallized Polyester	13 lbs / 3000 ft ²	21 g/m ²
Adhesive	Flame Resistant		
Reinforcing	Tri-Directional Fiberglass	5 / inch (MD) 5 / inch (XD)	20 / 100mm (MD) 20 / 100mm (XD)
Kraft	Natural	15 lbs / 3000 ft ²	25 g/m ²

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
Basis Weight	Scale	21 lbs / 1000 ft ²	101 g/m ²
Permeance (WVTR)	ASTME96/ProcedureA	0.02 perm	1.15 ng/N.s
Tensile Strength	ASTM D828	49 lbs/inch (MD) 40 lbs/inch (XD)	8.6 kN/m (MD) 7.0 kN/m (XD)
Thickness	Micrometer Caliper	0.007 inch	170 micron
Fire Rating	ASTM E84	Class A	Class A
Accelerated Aging	ASTM C1258 30 Days @ 95% RH, 120°F (49°C)	No Corrosion No Delamination	No Corrosion No Delamination
Low Temperature Resistance	ASTM C1263 4 hours at -20°F (-29°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
High Temperature Resistance	ASTM C1263 Modified 4 hours at 240°F (116°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
Water Immersion	24 hours @ 73°F (23°C)	No Delamination	No Delamination
Dimensional Stability	ASTM D1204	0.25%	0.25%
Light Reflectance	ASTM C523	85%	85%

TECHNICAL SERVICES

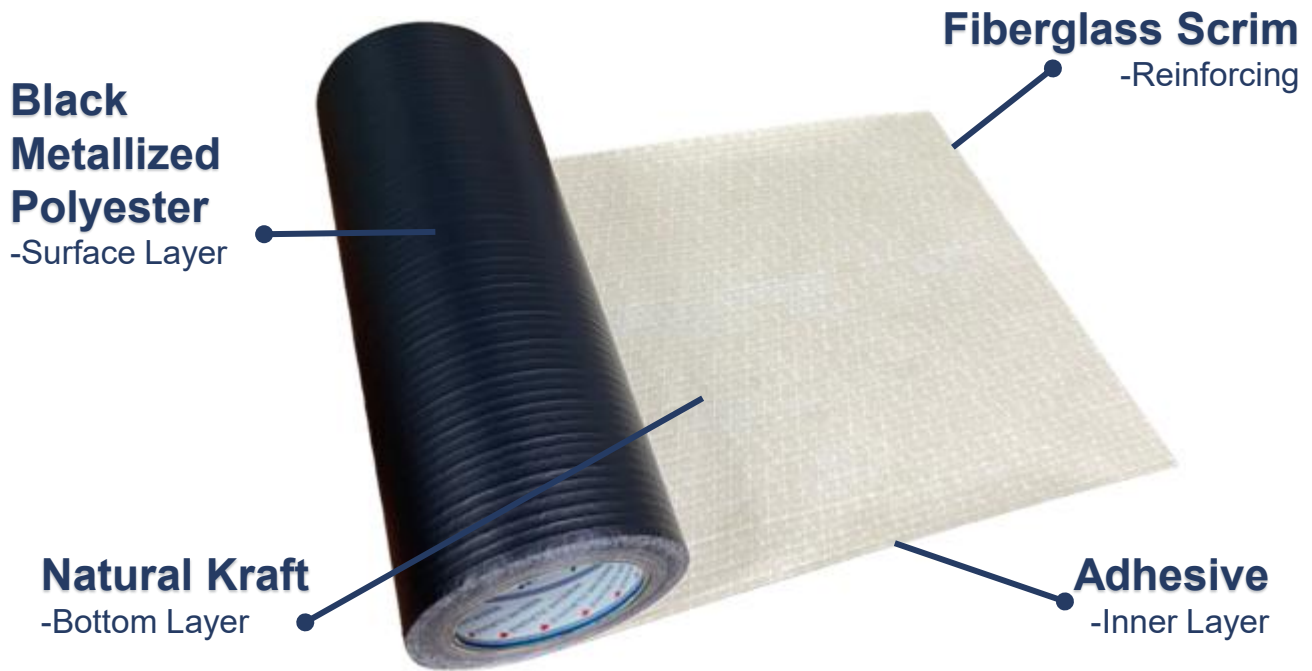
Tel: +1 7783251557

info@arksynthetics.com

www.arksynthetics.com

Ark[®] ARK-W30ILD Black

CONSTRUCTION:



ARK-W30ILD Black delivers corrosion resistance, durable flame retardancy, and performs well under high and low temperatures.

SAMPLE:





VAPOUR BARRIER SYSTEM

Polyester / Scrim / Kraft (ARK-W30ILD Black)

FACING COMPOSITION	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
Black Film	Metallized Polyester	13 lbs / 3000 ft ²	21 g/m ²
Adhesive	Flame Resistant		
Reinforcing	Tri-Directional Fiberglass	5 / inch (MD) 5 / inch (XD)	20 / 100mm (MD) 20 / 100mm (XD)
Kraft	Natural	15 lbs / 3000 ft ²	25 g/m ²

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
Basis Weight	Scale	21 lbs / 1000 ft ²	101 g/m ²
Permeance (WVTR)	ASTME96/ProcedureA	0.02 perm	1.15 ng/N.s
Tensile Strength	ASTM D828	49 lbs/inch (MD) 40 lbs/inch (XD)	8.6 kN/m (MD) 7.0 kN/m (XD)
Thickness	Micrometer Caliper	0.007 inch	170 micron
Fire Rating	ASTM E84	Class A	Class A
Accelerated Aging	ASTM C1258 30 Days @ 95% RH, 120°F (49°C)	No Corrosion No Delamination	No Corrosion No Delamination
Low Temperature Resistance	ASTM C1263 4 hours at -20°F (-29°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
High Temperature Resistance	ASTM C1263 Modified 4 hours at 240°F (116°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
Water Immersion	24 hours @ 73°F (23°C)	No Delamination	No Delamination
Dimensional Stability	ASTM D1204	0.25%	0.25%
Light Reflectance	ASTM C523	85%	85%

TECHNICAL SERVICES

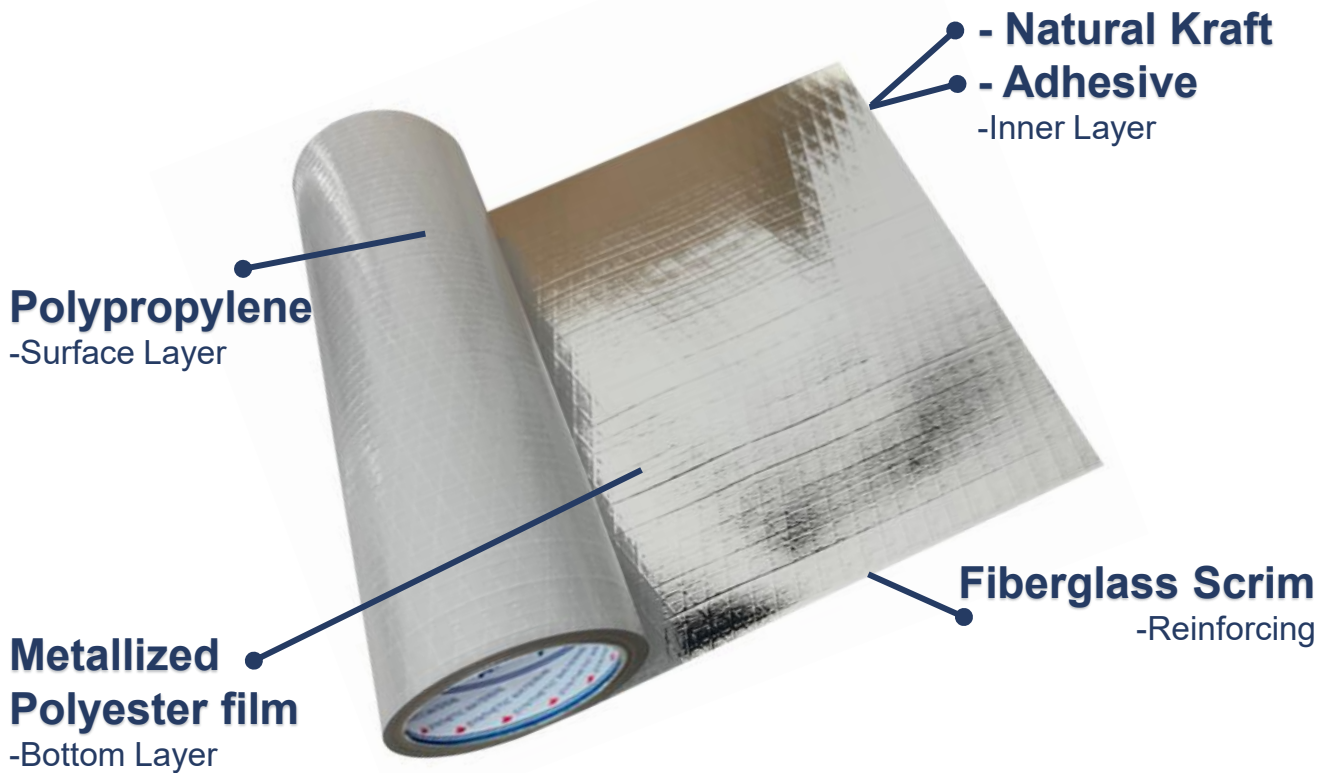
Tel: +1 7783251557

info@arksynthetics.com

www.arksynthetics.com

Ark[®]nt ARK-W50

CONSTRUCTION:



ARK-W50 combines anti-oxidation, corrosion resistance, high strength, and long-lasting flame-retardant properties in one product.

SAMPLE:



VAPOUR BARRIER SYSTEM

Polypropylene / Scrim / Kraft / Foil / Polyester (ARK-W50)

FACING COMPOSITION	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
White Film	Polypropylene	0.0010 inch	25 micron
Adhesive	Flame Retardant		
Reinforcing	Tri-Directional Fiberglass	5 / inch (MD) 5 / inch (XD)	20 / 100mm (MD) 20 / 100mm (XD)
Kraft	Flame Retardant	31 lbs / 3000 ft ²	50 g/m ²
Film	Metallized Polyester	0.0005 inch	12.7 micron

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
Basis Weight	Scale	32 lbs / 1000 ft ²	156 g/m ²
Permeance (WVTR)	ASTME96/ProcedureA	0.02 perm	1.15 ng/N.s
Tensile Strength	ASTM D828	65 lbs/inch (MD) 60 lbs/inch (XD)	11.4 kN/m (MD) 10.5 kN/m (XD)
Thickness	Micrometer Caliper	0.009 inch	250 micron
Fire Rating	ASTM E84	Class A	Class A
Accelerated Aging	ASTM C1258 30 Days @ 95% RH, 120°F (49°C)	No Corrosion No Delamination	No Corrosion No Delamination
Low Temperature Resistance	ASTM C1263 4 Hours at -20°F (-29°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
High Temperature Resistance	ASTM C1263 Modified 4 hours at 240°F (116°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
Water Immersion	24 hours @ 73°F (23°C)	No Delamination	No Delamination
Dimensional Stability	ASTM D1204	0.25%	0.25%
Light Reflectance	ASTM C523	85%	85%

TECHNICAL SERVICES

Tel: +1 7783251557

info@arksynthetics.com

www.arksynthetics.com

About Ark



*Build safer structures;
create lasting energy efficiency*

-- Founder of ARK

Ark Synthetics was founded in 2020 and is headquartered in Vancouver, Canada. We are dedicated to providing high-performance, reliable, and durable building material solutions for the North American market. In 2025, we established our U.S. subsidiary, Ark Guard, to better serve customers and markets in the United States. We believe building materials are not just the foundation of structures—they carry safety and trust.

Mr. Bu, CEO of Ark Synthetics, has been fully dedicated to the roofing and wall protection materials industry since the very beginning. With over 20 years of experience in manufacturing, product development, and factory operations, he established two production factories in China and built long-term collaborations with Australian clients to co-develop and optimize products. His meticulous attention to detail, relentless pursuit of innovation, and deep passion for the industry have enabled his products to achieve breakthroughs in fire resistance, waterproofing, durability, and weather performance, earning trust from clients in North America, Europe, and around the world.

Upon entering the Canadian market, we partnered with the internationally recognized organization Intertek for rigorous testing of our core products. We successfully obtained key North American approvals, including CCRR, CCMC, Miami-Dade County NOA, and the Florida Product Approval Listing, confirming that our products meet the highest standards for safety, durability, and code compliance.

The name “Ark” is inspired by Noah’s Ark, symbolizing protection, safety, reliability, and the strength to withstand storms. Ark Synthetics / Ark Guard products embody these values—providing long-lasting protection for buildings and earning customers’ trust.

Looking ahead, we remain committed to quality as our foundation, innovation as our driving force, and real-world problem-solving as our focus. We partner with clients across Canada, the U.S., and worldwide to deliver truly-reliable building materials.





Building Better Envelopes. Together.



ARK SYNTHETICS INC. (Canada)
Ark Guard LLC (USA)
+1 778-325-1557
info@arksynthetics.com

www.arksynthetics.com