



Waterproofing and
Coating Technology

Akfix® coating

Starting its operations in chemical constructions field in 2001, Akfix focused on developing eco-friendly, life-esteem chemical products and technologies to create permanent solutions for customer needs.

Developing different products on different customer needs, Akfix serves to his customers a wide product range of:

- Pu foams
- Sealants
- Adhesives
- Aerosols
- Coatings Technology

Akfix Sealants & Adhesives, with 14 years of experience in construction chemicals, has started the production of technical adhesives, polyurethane, polyurea and epoxy coating systems, along with two component heat & sound insulation and waterproofing systems since 2012, based on 1,5 year R&D investment.

With its proliferative know-how and knowledge, Akfix comes up to be an ideal MASTER OF SOLUTIONS, who is a real

professional and international player in polyurethane foam, sealants, adhesive and coating market, development and supply. It CREATES PERMANENT SOLUTIONS to support and complete professional building and construction companies in all their operations.

Today, Akfix is in a close relationship with its customers, distributing its products to more than 108 countries all over the world, being able to meet their demands in a very short period of time. Akfix is also presenting important advantages and benefits to its partners in the market. It is providing effective marketing and sales support to its partners, securing their strong position in today's competitive market. Moreover, Akfix products, developed on the needs of the market, are presented into market with intense promotional and communicational operations.

Professionals and amateurs all over the world are preferring Akfix products for more permanent and fruitful outcomes.

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www.akfixcoating.com



COATINGS APPLICATION AREAS

- 1 Concrete Substrate
- 2 Joint Sealant Polyurea
- 3 Spray PU Foam
- 4 Polyurea
- 5 Base Coat Liquid Membrane
- 6 Polyaspartic Polyurea



7 Top Coat Liquid Membrane

8 Aliphatic Polyurea

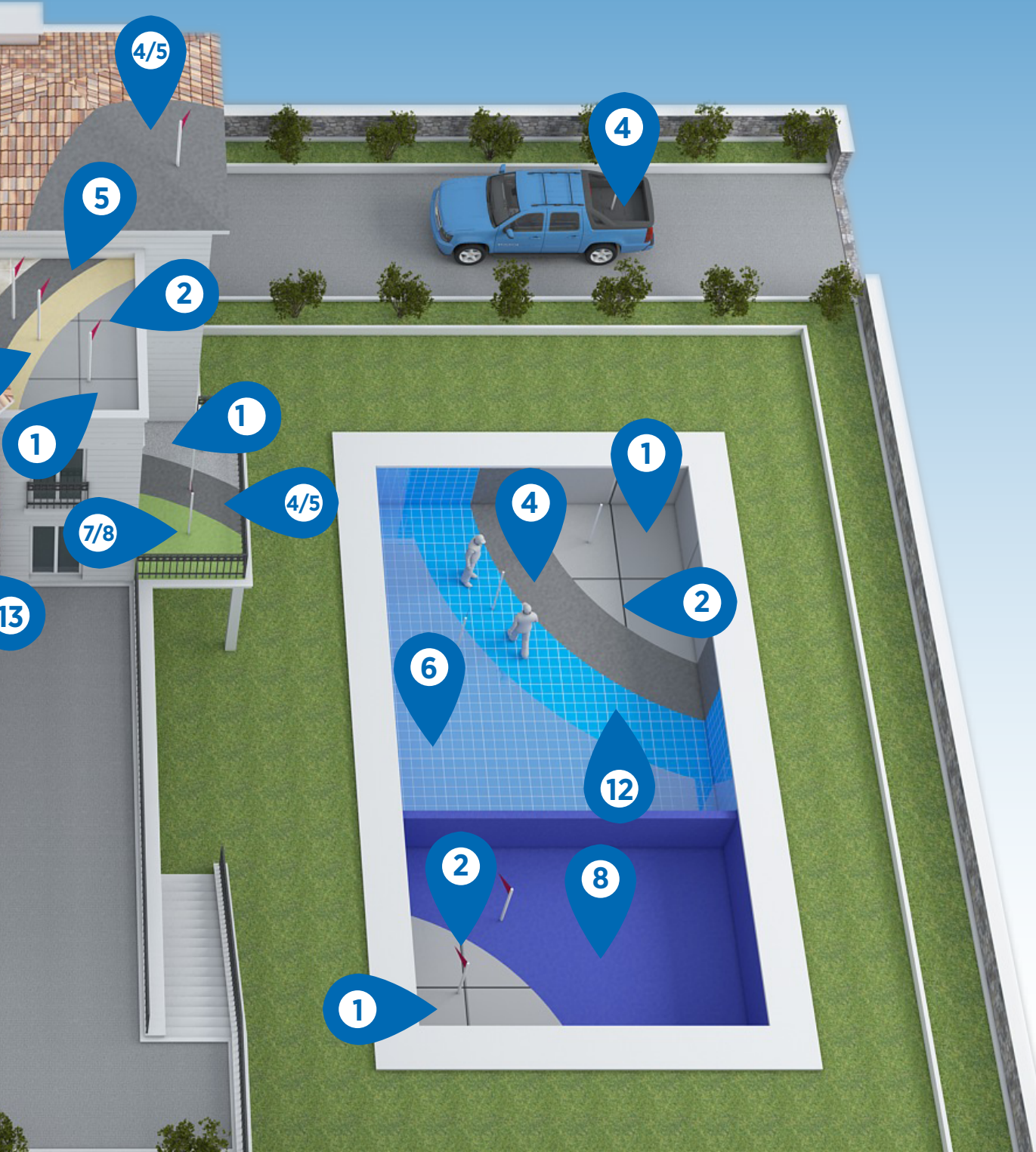
9 Rubber Tile Adhesive

10 Press Rubber Binder

11 Pour in Place Rubber Binder

12 Ceramic

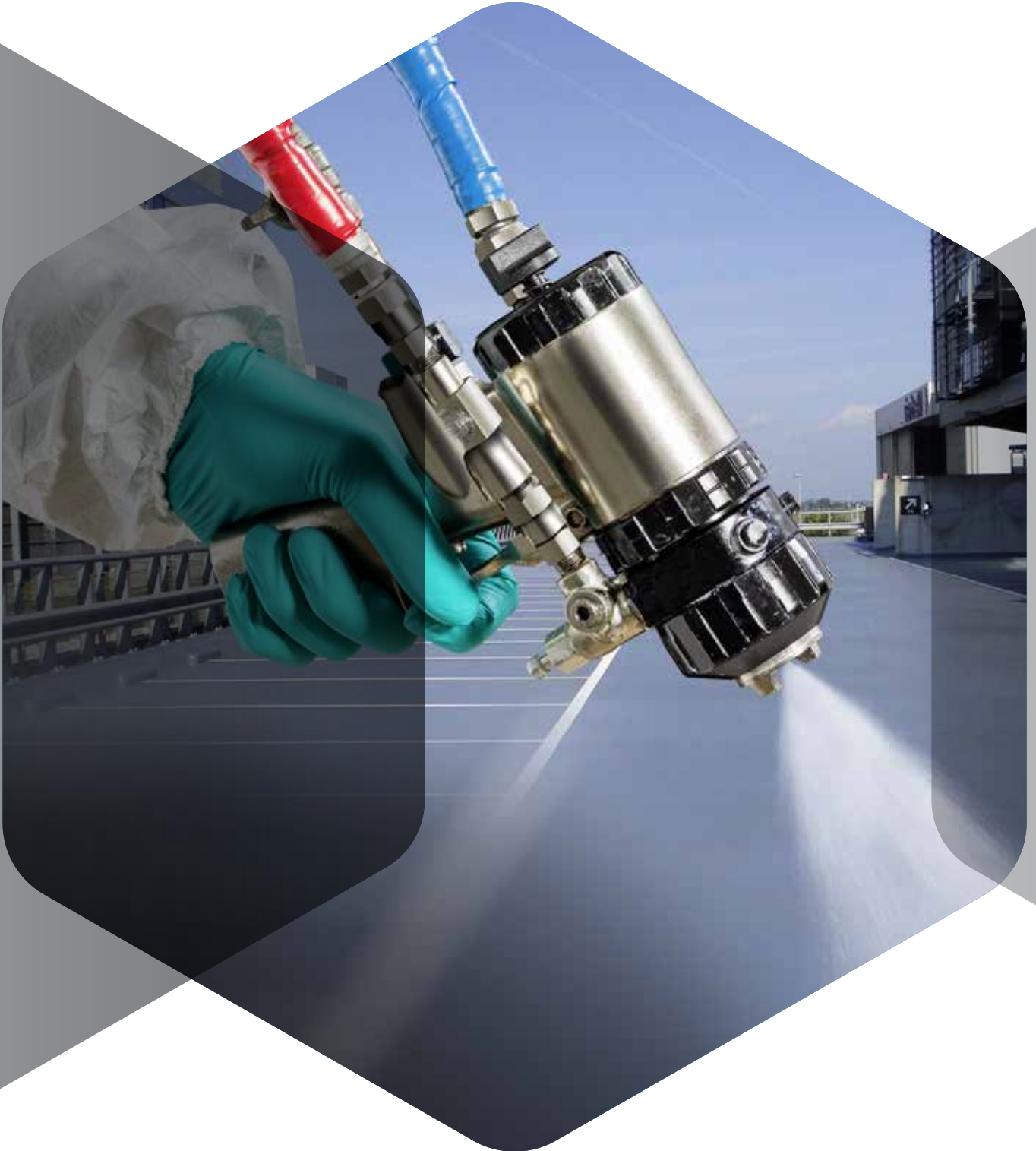
13 PU Wood Imitation Panel



Akfix coating

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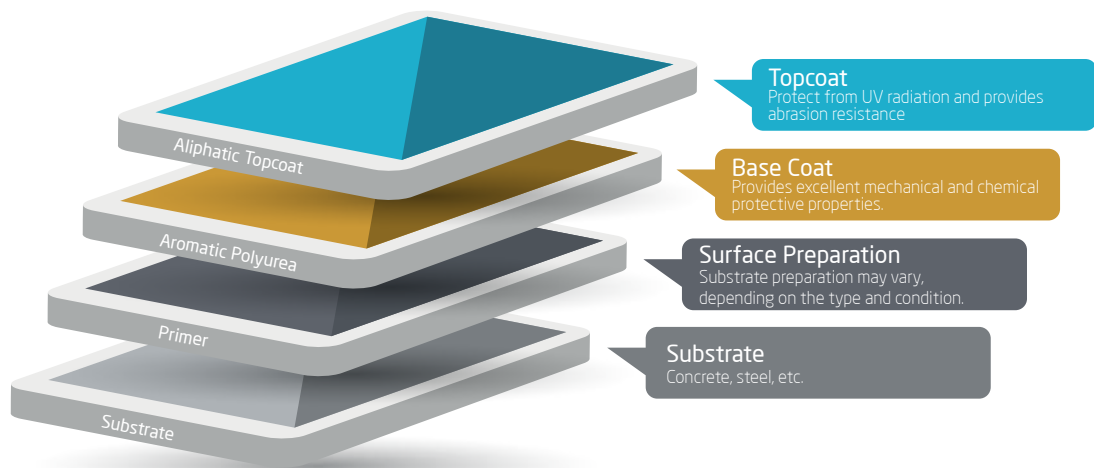
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WHAT IS POLYUREA?

Polyurea is a two component coating material derived from chemical reaction between isocyanate and amine resin component.

Polyurea systems forms 100% solid, waterproofing film with no detrimental effect to the environment. With its many important properties such as excellent tensile, abrasion and corrosion resistance; it is a remarkable coating technology for today and future.



Advantages:

- React, set and cure quickly -faster than all other technologies
- Material performance insensitive to moisture and temperature
- Have high thermal resistance and good low temperature flexibility
- Have outstanding mechanical and chemical resistance
- Excellent abrasion resistance
- Waterproof and durable
- Do not contain VOC and solvents (100 % solids)
- Environmentally friendly product
- Excellent elongation at break
- Can be coated in any desired layer thickness in one pass
- Adhere well to all substrates
- Spray application, time and labour saving

Due to the unique characteristics of the technology, both in processing and performance; polyurea coatings from the beginning have set themselves in a different class from the conventional polyurethane and epoxy coating technologies.

Properties	Polyurea Coating	Polyurethane Coating	Epoxy Coating	Bituminous Membrane
Gel time	5 -15 sec.	60 min.	30-60 min.	60 min.
Dust Free time	15-45 sec.	3-6 hr	2-6 hr	3-6 hr
Full cure time	12-24 hr	6-8 day	6-8 day	6-8 day
Recoat time	0-12 hr	16-36 hr	16-36 hr	16- 36 hr
VOC content	No	Yes	Yes	Yes
Tensile strength (MPa)	>15	<5	>30	<5
Elongation (%)	>300	>400	<4	>400
Hardness (Shore A)	85-90	65-70	>90	30-35
Tear strength	Excellent	Poor	Poor	Poor
Adhesion force (concrete) (N/mm ²)	>2	>1,5	>2	>1,5
Abrasion resistance	Excellent	Good	Excellent	Good
Impact resistance	Excellent	Good	Good	Good
Waterproofing	Excellent	Good	Poor	Good
Moisture sensitivity	No	Yes	Yes	Yes
Chemical resistance	Excellent resistance	Poor resistance	Good resistance	Poor resistance
Weather durability	Best	Good	Poor	Good
Application temperature (°C)	-15-+70	10- 35	10- 35	10- 35
Substrate temperature (°C)	-15-+70	10- 35	10- 35	10- 35
Application method	Spray	Brush and roll	Brush and roll	Brush and roll
Construction speed	Very fast	Slow	Slow	Slow
Applied surface	Vertical and horizontal	Horizontal	Horizontal	Horizontal
One coat application	Yes	No	No	No
Application thickness (mm)	1,5-2	1,5-2	1,5-2	1,5-2
Service time	>50 years	35 years	5-7 years	5-10 years

A remarkable technology with a range of uses limited only to your imagination. Polyurea main application areas can be listed as:







Standard Pure Polyurea Polyurea 1044

Very fast set, 2-component, 100% solids, solventless and flexible aromatic pure polyurea systems. It has been especially designed to protect concrete, metal, wood, ceramic, geotextile and PU foam substrates. Complicated shapes and vertical surfaces can be sealed without problem.

Properties

Very fast set and service time. 100% solids, VOC free, odorless. Seamless and waterproofing. Excellent crack bridging. Excellent elongation. Excellent chemical resistance. Excellent abrasion and impact resistance. Excellent tensile and structural strength.

Applications

Industrial floor coatings, hospitals, factories and parking lots. Waste water treatments, manholes and sewer linings. Water tanks, pipes, pools and swimming pools. Roofs, terraces, balconies etc. Roads, bridges and tunnels. Refineries, petrochemistry and energy industry. Marine industry. Transportation and pick up liners

	Method	Datas
Gel time (sec.)	--	5-10
Tack free time (sec.)	--	15-25
VOC content(%)	ASTM D 1259	0
Tensile strength (MPa)	ASTM D638	>18
Elongation (%)	ASTM D638	≥350
Hardness (Shore A)	ASTM D2240	90-95
Impact resistance	EN ISO 6272-1	Class III
Taber abrasion (mg)	ASTM D 4060	<78 1000 Cycles
Pull off strength (N/mm ²)	ASTM D 4541	Concrete : ≥2,5 Steel : ≥6

Consumption: 1kg/m² (for 1 mm thickness)

Shelf life: 9 months

Packaging: 425 kg set (iso component 225 kg; / amine component 200 kg)

Colours: Available in several RAL colours

Eco Pure Polyurea Polyurea 1045

Very fast set, 2-component, 100% solids, solventless and flexible aromatic pure polyurea systems. It has been especially designed to protect concrete, metal, wood, ceramic, geotextile and PU foam substrates. Complicated shapes and vertical surfaces can be sealed without problem.

Properties

Very fast set and service time. 100% solids, VOC free, odorless. Seamless and waterproofing. Excellent crack bridging. Excellent elongation. Excellent chemical resistance. Excellent abrasion and impact resistance. Excellent tensile and structural strength

Applications

Industrial floor coatings, hospitals, factories and parking lots. Waste water treatments, manholes and sewer linings. Water tanks, pipes, pools and swimming pools. Roofs, terraces, balconies etc. Roads, bridges and tunnels. Refineries, petrochemistry and energy industry. Marine industry. Transportation and pick up liners



	Method	Datas
Gel time (sec.)	--	5-10
Tack free time (sec.)	--	15-25
VOC content(%)	ASTM D 1259	0
Tensile strength (MPa)	ASTM D638	>15
Elongation (%)	ASTM D638	≥375
Hardness (Shore A)	ASTM D2240	90-95
Impact resistance	EN ISO 6272-1	Class III
Taber abrasion (mg)	ASTM D 4060	<100 1000 Cycles
Pull off strength (N/mm ²)	ASTM D 4541	Concrete : ≥2,5 Steel : ≥6

Consumption: 1kg/m² (for 1 mm thickness)

Shelf life: 9 months

Packaging: 425 kg set (iso component 225 kg; amine component 200 kg)

Colours: Available in several RAL colours



Potable Water & Food Contact Approved Polyurea Polyurea FA 1044

100% solids and flexible pure polyurea spray coating material. This general purpose pure polyurea has been approved for direct contact with potable water and food.

Properties

Approved for potable water contact. 100% solids, VOC free, odorless. Excellent thermal stability. Seamless and waterproofing. Excellent structural resistance.

Applications

Potable water storage systems and tanks. Potable water pipes. Food processing and storage facilities. Rain storage facilities. Filtration systems. Pools. Cold storage tank.

	Method	Datas
Gel time (sec.)	--	5
Tack free time (sec.)	--	20
VOC content(%)	ASTM D 1259	0
Tensile strength (MPa)	ASTM D638	>16
Elongation (%)	ASTM D638	≥350
Hardness (Shore A)	ASTM D2240	85-90
Taber abrasion (mg)	ASTM D 4060	<90 1000 Cycles
Pull off strength (N/mm ²)	ASTM D 4541	Concrete : ≥2,5 Steel : ≥6
Food contact approval	EN 1186-1/15	

Consumption: 1 kg/m² (For 1 mm thickness)

Shelf life: 9 Months

Packaging: 425 kg set (Iso component 225 kg; amin bileşen / amine component 200 kg)

Colours: Available in several RAL colours

Fire Retardant Polyurea

Polyurea FR 1044

Two component, 100% solids pure polyurea system developed for applications requiring a fire rated coating. It is designed for situations where the coating should have excellent fire retardant and flame-resistant properties. Ideal for interior linings in the industrial and commercial sectors. It can be used in transational, exterior and interior areas with confidence.

Properties

Fire retardant and fire resistant system. 100% solids, VOC free, odorless. Excellent thermal stability. Seamless and waterproofing. Excellent tensile and structural strength

Applications

Any surface a fire retardant system is required. Industrial facilities, hospitals, factories and garages. Manufacturing facilities. Secondary containments, refineries, oil, gas and energy industries. Roads, bridges, tunnels, railways and high speed railways. Marine industry.



	Method	Datas
Gel time (sec.)	--	5
Tack free time (sec.)	--	25
VOC content(%)	ASTM D1259	0
Tensile strength (MPa)	ASTM D638	>16
Elongation (%)	ASTM D638	≥350
Hardness (Shore A)	ASTM D2240	85-90
Taber abrasion (mg)	ASTM D 4060	<90 1000 Devir / Cycles
Pull off strength (N/mm ²)	ASTM D 4541	Concrete : ≥2,5 Steel : ≥6
Fire resistance class	EN 13501-1	E

Consumption: 1 kg/m² (For 1 mm thickness)

Shelf life: 9 months

Packaging: 425 kg set (iso component 225 kg; amine component 200 kg)

Colours: Available in several RAL colours



Antistatic Polyurea Polyurea AS 1044

Fast curing, 100% solids antistatic pure polyurea system. Due to its electrostatic properties, it can be applied to surfaces to build up antistatic coatings to avoid risks of ignition due to electrostatic charge. It can be applied to areas where flammable liquids of danger classes are stored. It is therefore recommended for floorings or linings in areas such as electronic laboratories, cleaning rooms, hospitals, operating rooms, offices with sensitive technology etc.

Properties

Antistatic property. Excellent adhesion force. Excellent thermal stability. Excellent tensile and structural resistance. Temperature and moisture insensitivity

Applications

Industrial manufacturing facilities and storage areas. Laboratories. Hospitals and operating room floors. Transportation and truck bed liners. Refineries and gas pipes. Tank coatings.

	Method	Datas
Gel time (sec.)	--	10
Tack free time (sec.)	--	30
VOC content(%)	ASTM D1259	0
Tensile strength (MPa)	ASTM D638	>16
Elongation (%)	ASTM D638	≥350
Hardness (Shore A)	ASTM D2240	85-90
Taber abrasion (mg)	ASTM D 4060	<90 1000 Cycles
Pull off strength (N/mm ²)	ASTM D 4541	Concrete : ≥2,5 Steel : ≥6

Consumption: 1 kg/m² (for 1 mm thickness)

Shelf life: months

Packaging: 425 kg set (Iso component 225 kg; amine component 200 kg)

Colours: Available in several RAL colours

Enhanced Flexibility Polyurea Polyurea FX 1044

Pure polyurea which is specifically formulated for applications which require higher elongation, in addition to having all basic properties of pure polyurea. Due to its high elasticity, ideal for waterproofing metal roofs and suitable for coating combination with geotextiles.

Properties

Excellent elongation. Excellent thermal stability. Seamless and waterproofing. Excellent crack bridging property. Geometrically complicated components coating.

Applications

Metal roofs and garages. Geotextile coatings. Terrace and balconies. Flexible membranes. Decorative applications



	Method	Datas
Gel time (sec.)	--	15
Tack free time (sec.)	--	40
VOC content(%)	ASTM D1259	0
Tensile strength (MPa)	ASTM D638	>10
Elongation (%)	ASTM D638	≥500
Hardness (Shore A)	ASTM D2240	75-80
Pull off strength (N/mm ²)	ASTM D 4541	Concrete : ≥2,5 Steel : ≥6

Consumption: 1 kg/m² (for 1 mm thickness)

Shelf life: months

Packaging: 425 kg set (iso component 225 kg; amine component 200 kg)

Colours: Available in several RAL colours

High Performance Polyurea Polyurea HP 1044

This polyurea is especially designed for applications which require high abrasion, chemical and corrosion resistance. For waterproofing and corrosion protection this product can be applied many kinds of surfaces like concrete, metal, wood, ceramic and polyurethane foams. It can be applied to interior and exterior areas with confidence.

Properties

Superior abrasion and impact resistance. Excellent tensile and tear resistance. High hydrolysis resistance. Excellent thermal stability. Excellent acid and base resistance

Applications

Load and high traffic areas. Parking lots and garages. Truck bedliners. Cold storage rooms and manufacturing facilities. Roads, bridges railways and airports. Cargo containers. Marine industry. Oil and gas industry. Refineries, petrochemical industry and mining.



	Method	Datas
Gel time (sec.)	---	5
Tack free time (sec.)	---	20
VOC content(%)	ASTM D 1259	0
Gerilme direnci (MPa) / Tensile strength (MPa)	ASTM D638	>25
Uzama (%) / Elongation (%)	ASTM D638	≥200
Sertlik (Shore A) / Hardness (Shore A)	ASTM D2240	92-95
Aşınma direnci (mg) / Taber abrasion (mg)	ASTM D 4060	<30 1000 Devir / Cycles
Yapışma gücü (N/mm ²) / Pull off strength (N/mm ²)	ASTM D 4541	Concrete : ≥2,5 Steel : ≥6

Consumption: 1 kg/m² (For 1 m² thickness)

Shelf life: Months

Packaging: 425 kg set (iso component 225 amine component 200 kg)

Colours: Available in several RAL colours

Aliphatic Polyurea

Polyurea AL 1070

100% solids, flexible, two component, UV light stable elastomer coating material. It is a superior coating material designed specifically for industrial and commercial applications receiving constant or intermittent exposure to ultraviolet light to prevent discoloration. It can be applied directly to most substrates and may be used as a topcoat for existing epoxy, polyurethane, or polyurea. When fully cured, produce a highly abrasion resistant, high tensile force and high-gloss finish. The material is applied with high pressure and temperature spray machine.

Properties

Fast cure and service time. 100% solids, VOC free. 100% color stability. Excellent UV light stability. Excellent adhesion to most substrates. High gloss top coat.

Applications

Any exterior application requires colour stability. Roofs, garages and park areas. Bridges and tunnels. Wind turbines. Airports, shipyards and marines. Water parks, leisure parks and pools. Decorative applications and furniture industry.



	Method	Datas
Gel time (sec.)	--	15
Tack free time (sec.)	--	60
VOC content(%)	ASTM D 1259	0
Tensile strength (MPa)	ASTM D638	>16
Elongation (%)	ASTM D638	≥400
Taber abrasion (mg)	ASTM D 4060	< 33 1000 Cycles
Pull off strength (N/mm ²)	ASTM D 4541	Concrete : ≥2,5 Steel : ≥6

Consumption: 1 kg/m² (for 1 mm thickness)

Shelf life: months

Packaging: 425 kg set (iso component / amine component 200 kg)

Colours: Available in several RAL colours



Polyaspartic Polyurea

Polyurea PA 1005

Polyaspartic polyurea; two component, new generation aliphatic polyurea surface coating system for applications which require excellent UV resistance and colour stability. Polyaspartic coatings are different in both application and performance properties from plural component spray applied polyureas. On account of the UV- and colour fast properties it will be used amongst others as thin layer coating for surface protection and/or sealing on existing coating systems. The system has very high abrasion and scatch resistance. Polyaspartic polyurea systems can be applied with brush, roller or airless spray.

Properties

Suitable for outdoor applications. Long working time. Color stability, excellent UV resistance. High gloss finish. High impact and abrasion resistance.

Applications

UV and color stable top coat on existing base coats. High color stability and gloss requiring swimming pools. Terraces and roofs. Water parks, playgrounds and decorative applications. Wind turbines.



	Method	Datas
VOC content(%)	ASTM D 1259	0
Gel time (min.)	--	35-40
Tack free time (hr.)	ASTM D638	1,5-2
Tensile strength (MPa)	ASTM D638	>30
Elongation (%)	ASTM D 4060	4-6
Taber abrasion (mg)	--	<15 1000 Cycles

Consumption: 0,3-0,4 kg/m²

Shelf life: months

Colours: Available in transparent and several RAL colours

Standard Hybrid Polyurea Polyurea HB 1010

Very fast set, 2-component , 100% solids, flexible hybrid polyurea system. It can be applied as an economic coating alternative to pure polyurea products. It can be applied any surface for waterproofing.

Properties

Economic alternative to pure polyurea products. Very fast reactivity and return to service. Seamless, jointless, and water resistant coating. Excellent flexibility. Excellent adhesion on concrete and metal.

Applications

General water insulation applications. Industrial and manufacturing facilities. Roof, terraces and balconies. Pick up bed liners. Water parks, play grounds and decorative applications.



	Method	Datas
Gel time (sec.)	--	15
Tack free time (sec.)	--	45
VOC content(%)	ASTM D 1259	0
Tensile strength (MPa)	ASTM D638	>13
Elongation (%)	ASTM D638	≥400
Hardness (Shore A)	ASTM D2240	80-85
Taber abrasion (mg)	ASTM D 4060	<150 1000 Cycles
Pull off strength (N/mm ²)	ASTM D 4541	Concrete : ≥2,5 Steel : ≥6

Consumption: 1 kg/m² (for 1 mm thickness)

Shelf life: months

Packaging: 425 kg set (iso component 225 kg; amine component 200 kg)

Colours: Available in several RAL colours



Eco Hybrid Polyurea

Polyurea HB 1015

Very fast set, 2-component, 100% solids, flexible hybrid polyurea system. It can be applied as an economic coating alternative to pure polyurea products. It can be applied any surface for waterproofing.

Properties

Economic alternative to pure polyurea products. Very fast reactivity and return to service. Seamless, joint-less, and water resistant coating. Excellent flexibility. Excellent adhesion on concrete and metal.

Applications

General water insulation applications. Wastewater treatment facilities. Industrial and manufacturing facilities. Roof, terraces and balconies. Pick up bed liners. Water parks, play grounds and decorative applications.



	Method	Datas
Gel time (sec.)	--	15
Tack free time (sec.)	--	45
VOC content(%)	ASTM D 1259	0
Tensile strength (MPa)	ASTM D638	>9
Elongation (%)	ASTM D638	≥300
Hardness (Shore A)	ASTM D2240	70-75
Taber abrasion (mg)	ASTM D 4060	<160 1000 Cycles
Pull off strength (N/mm ²)	ASTM D 4541	Concrete : ≥2,5 Steel : ≥6

Consumption: 1 kg/m² (for 1 mm thickness)

Shelf life: 9 months

Packaging: 425 kg set (iso component 225 kg; amine component 200 kg)

Colours: Available in several RAL colours

Basecoat Polyurethane Membrane Pu Membrane 450

One component, easy to apply, specially formulated polyurethane based waterproofing membrane. It cures to form a highly elastic, seamless coating with excellent crackbridging properties. Its performance is maintained even at low temperatures.

Properties

Excellent adhesion force. Can be applied interior and exterior areas. Crack bridging property. Highly elongation. Easy application, economic. Excellent resistance to humidity and weather.

Applications

Coating on roofs and concrete surfaces. Waterproofing of balconies and terraces. Waterproofing of wet areas (under-tile) in toilets, bathrooms, kitchens, bridge and road decks. Waterproofing of pedestrian and vehicular traffic decks.



	Method	Datas
Tack free time (hr.)	ASTM C 679	8-12 (23 °C 50% R.H.)
Ready for foot traffic (hr.)	ASTM C 679	24-36 (23 °C 50% R.H.)
Full cure (day)	----	7 (23 °C 50% R.H.)
Tensile strength (MPa)	DIN 53504	3
Elongation (%)	DIN EN ISO 527	≥ 450

Consumption: 1 kg/m² (for 1 mm thickness)

Shelf life: 9 Ay / months

Packaging: 20 kg metal can

Colours: Available in several RAL colours

Topcoat Polyurethane Membrane Pu Membrane T 225

Transparent or colored, elastic, 100% UV light resistant, one component, aliphatic, polyurethane based, durable waterproofing material. It has a special curing system and prevents air bubble formation.

Properties

Excellent adhesion force. Excellent moisture and weather resistance. UV resistant and color stable. Easy application (roller or airless spray). Can be applied interior and exterior areas.

Applications

Topcoat on polyurethane and polyurea based coatings. Roofs, terraces and balconies. Swimming pools. 100% UV resistance requiring applications. Decorative applications.



	Method	Datas
Tack free time (hr.)	ASTM C 679	8-12 (23 °C 50% R.H.)
Ready for foot traffic (hr.)	ASTM C 679	24-36 (23 °C 50% R.H.)
Full cure (day)	----	7 (23 °C 50% R.H.)
Tensile strength (MPa)	DIN 53504	6
Elongation (%)	DIN EN ISO 527	≥ 250

Consumption: 0,7-0,8 kg/m²

Shelf life: 9 months

Packaging: 20 kg metal can

Colours: Available in transparent and in several RAL colours.



Surface Preparation and Repair





2K Joint Sealant Polyurea Polyurea JH 1070

Polyurea joint sealant technology has played an important role in meeting the increasing need for a faster curing sealant in the construction industry. This system is technologically advanced, self leveling, 100% solids, two component, joint filler and crack repair material. The system is specially designed as control and expansion joint filler in old and new concrete surfaces. It penetrates cracks in the concrete and prevents deformation. It can reopen to foot traffic after one hour of application.

Properties

100% solids, VOC free. Fast cure and service time. High elongation. Moisture and temperature insensitivity. Suitable for repairing cracks to reduce the rate of deterioration. Cures at ambient temperatures as low as -18°C

Applications

For concrete filling and crack repair. Concrete construction and control joints. Industrial factory floors. Joints in parking lots, balconies and roofs. Joints in airport runways. Joints in cold storage rooms.



	Method	Datas
Gel time (min.)	--	1
Tack free time (min.)	--	4-5
Tensile strength (MPa)	ASTM D638	>5
Elongation (%)	ASTM D638	≥250
Hardness (Shore A)	ASTM D2240	70-75
Pull off strength (N/mm ²)	ASTM D 4541	Beton / Concrete : ≥2,5 Çelik / Steel : ≥6

Shelf life: 12 months Packaging: 600 ml cartridges

Colours: Available in several colours

2K Polyurethane Dilatation Filler PU DF 25

Two component, high performance polyurethane based dilatation filler material. Designed for large horizontal joints and grouts. High adhesion force to different surfaces with high mechanical properties. It provides durable and highly elastic filling material.

Properties

Durable and elastic. High adhesion force. High mechanical properties. Water and chemical resistance.

Applications

Sealing of large expansion joint. Sealing of joints in water tanks. Sealing of joints in irrigation channels. Sealing of joints in airport runways.



	Method	Datas
Mix ratio (by weight)	--	A (resin): B (hardener) 2:1
Gel time (hr.)	--	2
Cure time(hr.)	--	24
Elongation (%)	ASTM D638	≥400
Hardness (Shore A)	ASTM D2240	25-30

Shelf life: 12 months Ambalaj / Packaging: A component 6 kg, B component 3 kg

Colours: Grey and white



Handmix Polyurea Polyurea HM 80

Hand mixable, self-leveling, 100% solids, flexible, two-component polyurea material. The product has a retarded reaction time (pot life) to permit 'hand mix' use. This superior material designed for joint and crack filling for concrete applications. It works well in adverse temperature conditions and reopen to vehicle and foot traffic just one hour after the application. It is ideal for use in cold storage facilities, and food processing plants where time and temperature are serious concerns.

Properties

100% solids, VOC Free. Hand mixable and applicable. Remains flexible in cold temperatures. Open to traffic in 60 minutes. Cures from -18 °C to 65 °C. Moisture insensitive.

Applications

For joint filling and crack repairing. Small repairs on existing polyurea coating. Joints in industrial floors. Joints in manufacturing facilities.

	Method	Datas
Gel time (min.)	--	8-9
Tack free time (min.)	--	9-10
VOC content(%)	ASTM D1259	0
Tensile strength (MPa)	ASTM D638	>8
Elongation (%)	ASTM D638	≥350
Hardness (Shore A)	ASTM D2240	80-85
Pull off strength (N/mm ²)	ASTM D 4541	Concrete: ≥2,5 Steel : ≥6

Shelf life: 12 months

Packaging: A component 2 or 4 kg, B component 2 or 4 kg

Colours: Available in several RAL colours.

1K Polyurethane Primer Primer 90

One component, transparent, polyurethane based primer. It cures with the moisture of the surface and the air. It can be used as a primer especially for concrete surfaces before application of coating materials. Applicable for interior and exterior areas.

Properties

Excellent adhesion to absorbent surfaces. Highly elastic to meet surface movements. Easy application (by roller or airless gun). Resistant to accumulated water and frost.

Applications

Concrete surface primer before polyurea, epoxy and polyurethane coatings. Primer for wood surfaces and ceramic tiles.

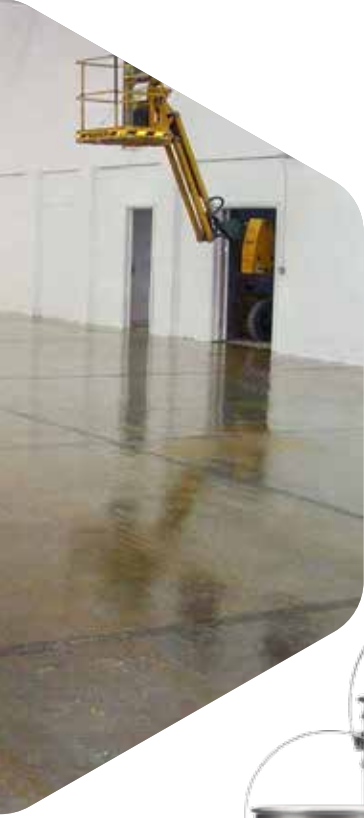


	Method	Datas
Dust free (hr.)	--	2-3 (23 °C 50% R.H.)
Foot traffic(hr.)	--	12-18 (23 °C 50% R.H.)
Full cure (day)	--	4 (23 °C 50% R.H.)
Pull off strength (N/mm ²)	ASTM D 4541	Concrete: ≥2
Hardness (Shore A)	ASTM D2240	85-90

Shelf life: 9 months Sarfiyat / Consumption: 0,3-0,4 kg/mm²

Packaging: 15 kg metal can

Colours: Transparent



Standard Epoxy Primer

Primer S80

Two component epoxy based surface preparation primer. It has high mechanical and chemical resistance. High adhesion force to well prepared surfaces.

Properties

Has low viscosity. High penetrating sealer. Reduces pin-holes on the surface. Applied by brush, spray or roller. Increase adhesion by up to 3 times.

Applications

Surface preparation primer before polyurea, epoxy and polyurethane coatings. Primer and binder for concrete repair. Primer for metal, wood and ceramic surfaces.



Method

Datas

Mix ratio (by weight)	--	A (reçine) / (resin) : B (sertleştirici) / (hardener) 4:1
Gel time (hr.)	--	1-1,5
Mixed viscosity (cps)	EN ISO 3219	500-650
Mixed density (gr/cm ³)	EN ISO 2811-1	1,36
Hardness (Shore D) (7day)	EN ISO 868	>75
Foot traffic(hr.)	--	12-18 (23 °C 50% R.H.)
Full cure (day)	--	7 (23 °C 50 % R.H.)
Pull off strength (N/mm ²)	ASTM D 4541	Concrete: 22,5

Shelf life: 12 months

Consumption: 0,3-0,4 kg/mm²

Packaging: A component 12 kg, B component 3kg

Colours: Transparent

Moisture Tolerant Epoxy Primer Primer 80

Two component, low viscosity, moisture and surface tolerant epoxy based primer. Especially developed as a damp concrete penetrating primer for polyurea applications. It penetrates and strengthens the surface of the concrete, reduces pin-hole formations and provides a chemically reactive surface to accept coating systems. Coating adhesion force is increased by up to three times that of unprimed concrete. It is designed for use in both interior and exterior priming applications. After curing it has high tensile and mechanical properties.

Properties

Excellent penetration and adhesion force. Moisture tolerant. Excellent bonding both on dry and damp surface. Barrier properties against moisture and water vapour. Low viscosity ,easy application and penetration. Seals pores and capillaries.

Applications

Barrier against moisture and water vapour on damp concrete surfaces. Surface primer before polyurea, epoxy and polyurethane coatings. Prevents creation of osmosis blisters which occurs due to negative side pressure.



	Method	Datas
Mix ratio (byweight)	--	A (resin) : B (hardener) 4:1
Gel time (hr.)	--	1,5-2
Mixed viscosity (cps)	EN ISO 3219	500-650
Mixed density (gr/cm ³)	EN ISO 2811-1	1,34 gr/cm ³
Hardness (Shore D) (7day)	EN ISO 868	>75
Foot traffic(hr.)	--	12-18 (23 °C 50% R.H.)
Full cure (day)	--	7 (23 °C 50 %R.H.)
Pull off strength (N/mm ²)	ASTM D 4541	Concrete: ≥2,5
Min. cure tempertaure (10 OC)	--	+10 OC
Recoat time (hr.)	--	min: 24 hr max: 72 hr(at 10 OC) min: 8 sa/hr max: 48 sa/hr (at 20 OC)

Shelf life: 12 months

Consumption: 0,3-0,4 kg/mm²

Packaging: A component 12 kg, B component 3 kg

Colours: Hazy

Epoxy Primer For Metal Primer M80

Two component epoxy based surface preparation primer. It has high mechanical properties and chemical resistance. It has excellent adhesion force to well prepared surfaces. It is used for corrosion protection of metal surfaces.

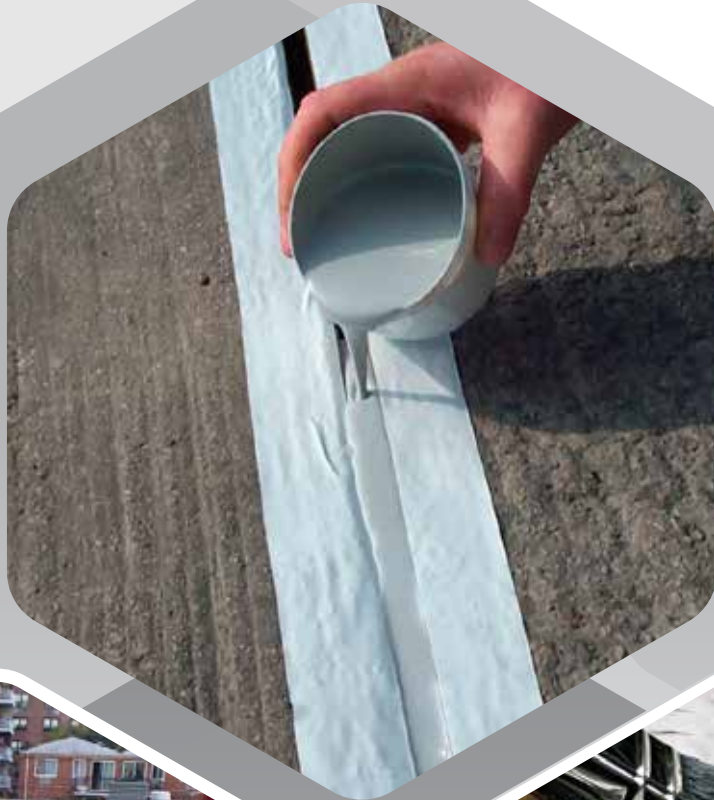
Properties

Protects metals from corrosion. Easy to apply. Excellent adhesion force to metals. Resistant to chemicals and salt water.

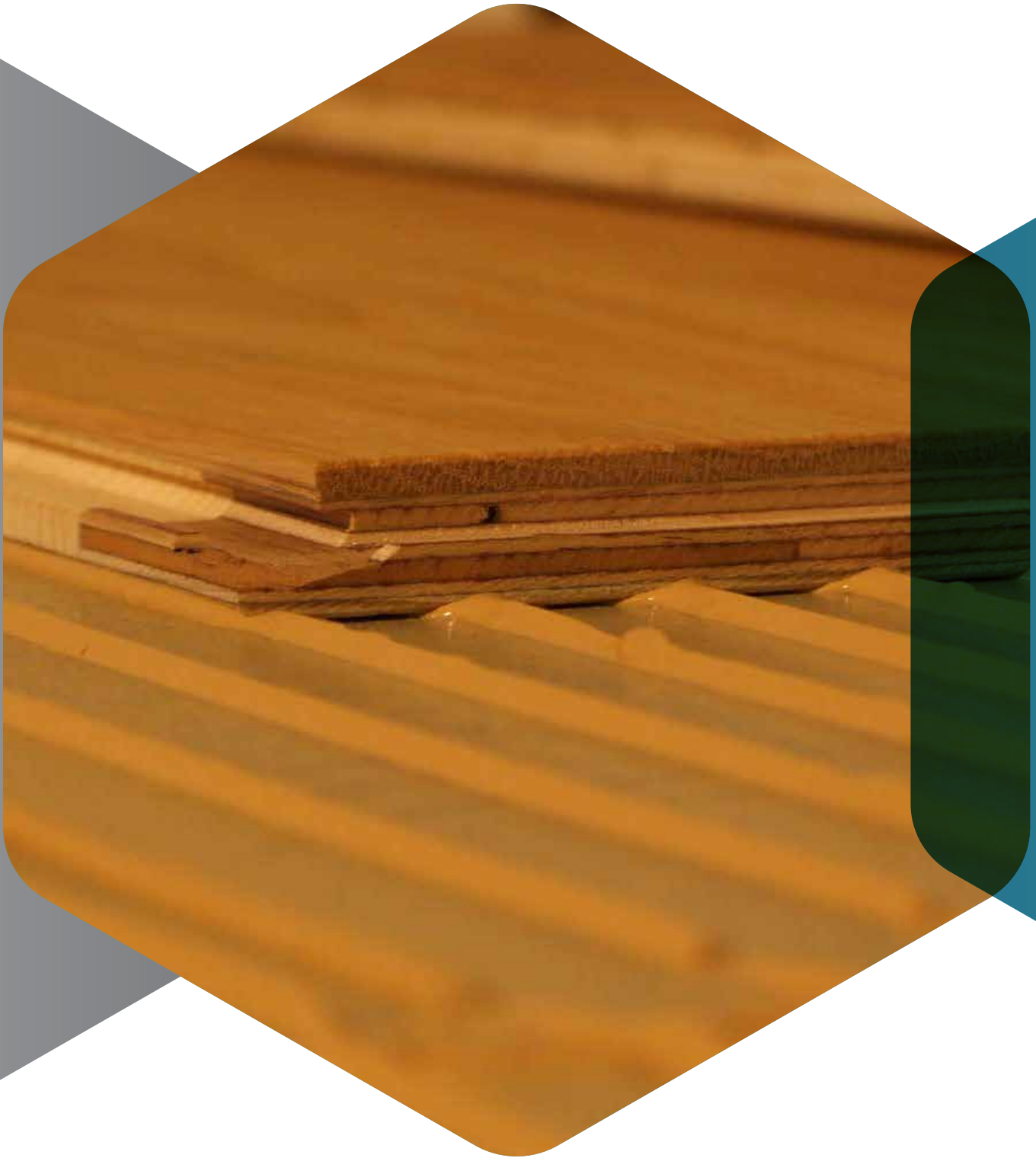
Applications

Anticorrosion primer for metal substrates before waterproofing coating application. Water storage tank and areas. Marine industry. Metal roofs.





Adhesives





Artificial Grass Adhesive PU ADH 325

Two component, solventless, self leveling, polyurethane based adhesive designed for installation of artificial grass. It is resistant to water, moisture and corrosive materials. Suitable for use in adverse weather conditions.

Properties

High yield. High adhesion force. High load resistance. Moisture and weather resistant. High coverage force. Solvent and VOC free.

Applications

Bonding artificial grass sports ground applications. Bonding rubber sheets to concrete, hardboard and chipboards. Bonding concrete, metal and wood materials.



Datas

Viscosity	Thixotropic
Solid content (%)	100
Density (Resin) (gr/cm ³)	1,35
Density (Hardener) (gr/cm ³)	1,2
Open time (min.)	25-40
Covarage (kg/m ²)	0,9-1,1
Tack free time (hr.)	1-1,5 (23 OC %50 R.H)
Mix ratio (by weight)	A (resin) : B (hardener) 5:1

Shelf life: 12 Ay / months

Packaging: A component 15 kg, B component 3 kg

Colours: Green or any desired colour.

Rubber Tile and Parquet Adhesive

PU ADH 315

Two component, solventless, polyurethane based rubber tile and parquet adhesive. It is specially designed for rubber tile and wood bonding to concrete surfaces. It is resistant to salt water and most chemicals. Easy applicable, durable and elastic adhesive for various substrates.

Properties

Solventless and odorless. Excellent bonding strength. Resistant to water and moisture. Easy penetration

Applications

Bonding rubber tiles and rubber carpets. Bonding all types of parquets and wood materials. Bonding metal and ceramic materials.



Datas

Viscosity	Tiksotropik / Thixotropik
Solid content (%)	100
Density (Resin) (gr/cm ³)	1,7
Density (Hardener) (gr/cm ³)	1,2
Open time (min.)	25-40
Covarage (kg/m ²)	0,9-1,1
Tack free time (hr.)	1-1,5 (23 OC %50 R.H.)
Mix ratio (by weight)	A (resin) : B (hardener) 7:1

Shelf life: 12 months

Packaging: A component 21 kg, B component 3 kg

Colours: Beige, Brown or any desired colour.



Standard Press Binder PU RB 205

One component, solventless, low viscosity polyurethane based binder which cures by reaction with atmospheric moisture. It has excellent bonding strength of recycled rubber granules. Because of fast curing speed it is suitable to use in press system applications.

Properties

Excellent bonding of rubber granules. Flexible and durable. Water resistant. Environmentally friendly. High chemical resistant.

Applications

Parks. Children and school playgrounds. Running tracks and walkways. Sport facilities. Rubber tile and doormat production. Sound vibration required surfaces.



	Method	Datas
Viscosity (cps, 25 °C)	EN ISO 3219	4000-5500
NCO content (%)	EN 1242	9,5-11,5
Density (gr/cm ³)	EN ISO 2811	1,1-1,14
Dust free time (min.)	--	100-130
Mixing ratio (by weight)	--	%5-6 Binder %94-95 Rubber granule

Shelf life: 6 months
Packaging: 220 kg drums
Colours: Transparent, amber.

ECO Press Binder PU RB 204

One component, solventless, low viscosity polyurethanebased binder which cures by reaction with atmospheric moisture. It has excellent bonding strength of recycled rubber granules. Because of fast curing speed it is suitable to use in press syetem applications.

Properties

Excellent bonding of rubber granules. Flexible and durable. Water reistant. Environmentally friendly.

Applications

Parks. Children and school playgrounds. Running tracks and walkways. Sport facilities. Rubber tile and doormat production. Sound vibration required surfaces.



	Method	Datas
Viscosity (cps, 25 °C)	EN ISO 3219	4750- 6250
NCO content (%)	EN 1242	11-12
Density (gr/cm ³)	EN ISO 2811-1	1,1-1,14
Dust free time (min.)	--	100-130
Mix ratio (by weight)	--	%5-6 Binder %94-95 Rubber granule

Shelf life: 6 months

Packaging: 220 kg drums.

Colours: Transparent, amber.



Pour In Place Binder PU RB 102

One component, UV stability enhanced polyurethane based binder which cures by reaction with atmospheric moisture. This is our slow curing speed binder which is primarily used in pour in place applications where humidity is in the 50%-80% and temperatures is in the 20 °C-35 °C.

Properties

Excellent bonding of rubber granules. UV light resistant. Flexible and durable. Solvent free.

Applications

Parks. Children and school playgrounds. Sport facilities, running tracks and walkways. Outdoor recreation areas. Synthetic surfaces.



	Method	Datas
Viscosity (cps, 25 °C)	EN ISO 3219	3500-4000
NCO content (%)	EN 1242	10-11,5
Density (gr/cm ³)	EN ISO 2811-1	1,1-1,14
Open time (hr.)	---	1-1,5
Cure time (hr.)	----	24
Mix ratio (by weight)	---	%15-20 Binder %80-85 Rubber granule

Shelf life: 6 months
Packaging: 220 kg drums
Colours: Transparent, amber.

Aliphatic Binder

PU RB 103

PU RB 103 is a solventless, moisture cure, single component, transparent polyurethane binder. It is designed for track, sport and playground applications. It is based on high quality aliphatic prepolymer for excellent UV and color stability.

Properties

High elongation. Excellent UV and color stability. Excellent bonding of rubber granules. Easy application. Environmentally friendly. Water resistant.

Applications

Parks. Children and school playgrounds. Sport facilities, running tracks and walkways. Outdoor recreation areas. Outdoor carpets and tiles. Synthetic surfaces.

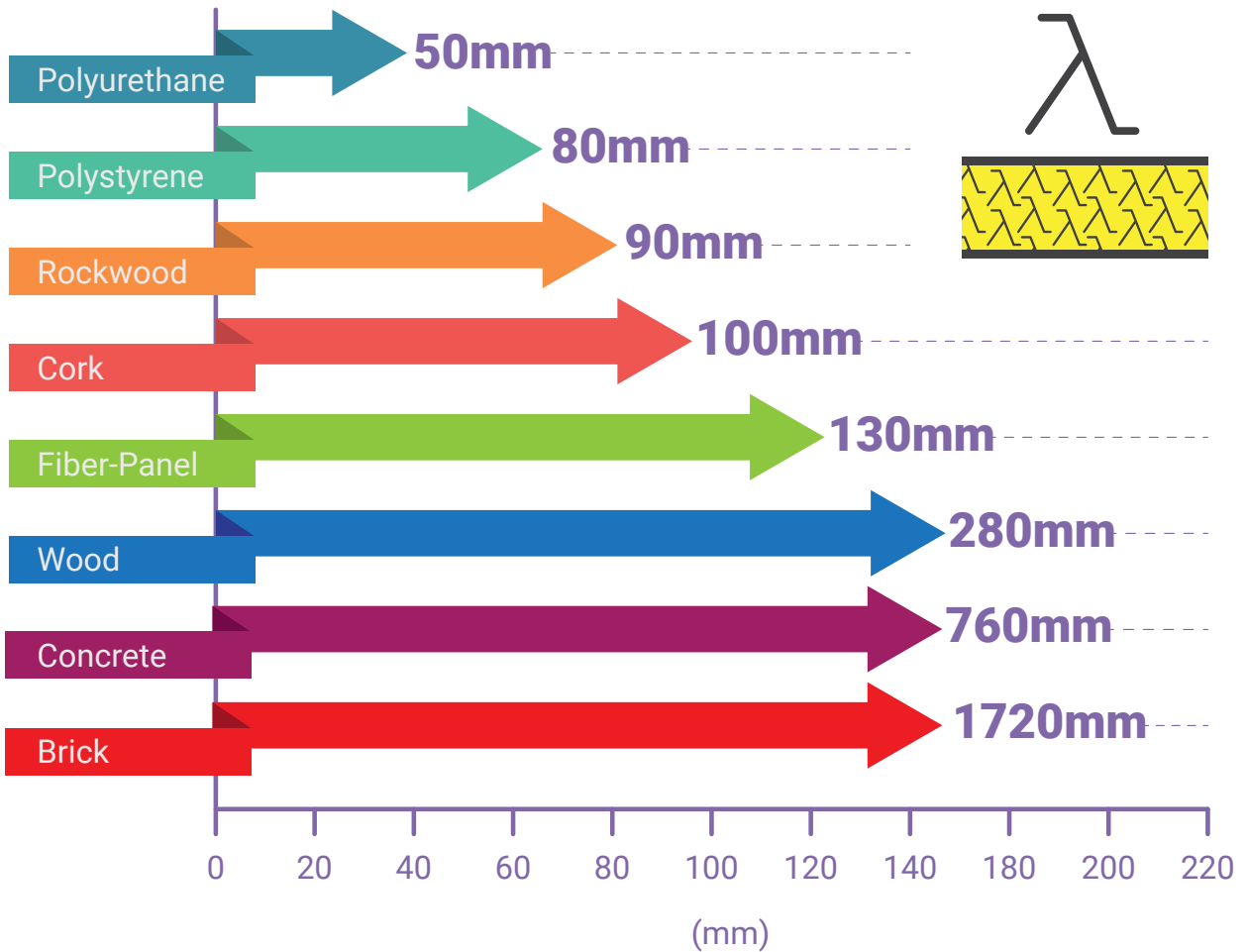


	Method	Datas
Viscosity (cps, 25 °C)	EN ISO 3219	2000-3000
NCO content (%)	EN 1242	8,5-9
Density (gr/cm ³)	EN ISO 2811-1	1,0-1,05
Cure time (hr.)	----	24
Mix ratio (by weight)	---	%15-20 Binder %80-85 Rubber granule

Shelf life: 6 months
Packaging: 220 kg drums
Colours: Transparent.

RIGID POLYURETHANE SYSTEMS

Polyurethane derived from reaction between hydroxyl(OH) functional polyol and NCO functional isocyanate. Two component mix with the aid of proper catalysts and become solid with an exothermic reaction. The generated heat during the reaction helps evaporation of the blowing agent in the mixture which causes expansion and formation of foam.



Wood	Glass fibre	Rockwool	Polystyrene	Polyurethane
280 mm	130 mm	90 mm	80 mm	50 mm

SPRAY POLYURETHANE ROCKWOOL - EPS / XPS COMPARISON TABLE

PARAMETERS	POLYURETHANE	ROCK WOOL	EPS-XPS
APPLICATION AMOUNT	700-800 m ² /day	100-150 m ² /day	150-200 m ² /day
PERSONNEL NUMBER	2-3	4-5	4-5
SERVICE TIME	70-80 year	10-15 year	8-10 year
HEAT BRIDGE	NOT OCCUR. SEAMLESS	OCCUR.HAS SEAMS	OCCUR. HAS SEAMS
INSECT	NOT OCCUR	NOT OCCUR	NOT OCCUR
HEAT DIFFUSION COEFFICIENT	0,020-0,025 W/mK	0,040-0,045 W/mK	0,030-0,035 W/mK
DENSITY	40 kg /m ³	150 kg /m ³	16-32 kg /m ³
APPLICATION THICKNESS	3-4 cm	5-6 cm	4-5 cm
1m ² WEIGHT	1,5 - 2,0 kg	7,5 kg (12 kg with liquid and anchor)	1,5-2,0 kg
VAPOUR DIFFUSION	YES	YES	YES
SOUND INSULATION	YES 48-60 dB.	YES	YES
WALKING ON	YES (FOR ABOVE 40 DENSITY)	NO	YES (HIGH DENSITY)
ADHESIVE-ANCHOR	DOES NOT NEED	NEED	NEED
FIRE CLASS	B1 - B2	A1	B2-B3
COMPRESSIVE STRENGTH	0,15 - 0,20 MPa	0,025 MPa	0,10 - 0,15 MPa
COST	15-20 TL /m ²	15-20 TL /m ²	10-15 TL /m ²

Rigid Polyurethane Systems



Spray Foam System

2K polyurethane foam system which is designed for spray applications. The material must be applied with a high pressure plural component spray polyurethane machine. Mobile application of system has advantages in construction site and high building applications. Because of spray and on-site application, it takes the shape of the surface and because of that property it can be applied any type of area and surface.

Properties

Its main application areas are; poultry farms, cold storage tanks, terraces, roofs, basement ground floors, ceilings, external walls insulation, ground insulation.

Applications

Generally application is done with 25-50 kg/m³ density polyurethane systems. Since it prevents bacteria growth and it is approved for food contact, specially can be applied for food storage tank insulation and animal shelters. Based on DIN 4102-1 standard can be classified as B1 and B2 fire resistance class.



Product range

Akfix SPR 125 (B1 Sınıfı / Class; 25 Yoğunluk / Density)

Akfix SPR 130 (B1 Sınıfı / Class; 30 Yoğunluk / Density)

Akfix SPR 135 (B1 Sınıfı / Class; 35 Yoğunluk / Density)

Akfix SPR 140 (B1 Sınıfı / Class; 40 Yoğunluk / Density)

Akfix SPR 220 (B2 Sınıfı / Class; 20 Yoğunluk / Density)

Akfix SPR 225 (B2 Sınıfı / Class; 25 Yoğunluk / Density)

Akfix SPR 230 (B2 Sınıfı / Class; 30 Yoğunluk / Density)

Akfix SPR 235 (B2 Sınıfı / Class; 35 Yoğunluk / Density)

Akfix SPR 240 (B2 Sınıfı / Class; 40 Yoğunluk / Density)

Solar Energy And Boiler Systems

It is a moulding application polyurethane system. Specially designed for / solar energy system and boiler insulation. Because of its excellent bonding strength, it can adhere to metal with no adhesive.

Applications

Generally 35-45 kg/m³ density polyurethane systems are used. Since it prevents bacteria growth and it is approved for food contact, specially can be applied for food storage tank insulations.



Product range

Akfix SLR 230 (B2 Sınıfı / Class; 30 Yoğunluk / Density)

Akfix SLR 235 (B2 Sınıfı / Class; 35 Yoğunluk / Density)

Akfix SLR 240 (B2 Sınıfı / Class; 40 Yoğunluk / Density)



Refrigerator And Cooler Systems

It is a moulding application polyurethane system. The system is designed for production of refrigerators for home use, deep freezers, minibars, industrial coolers and ice cream refrigerators. Because of its excellent bonding strength, it can adhere to metal with no adhesive.

Properties

Generally 38-42 kg/m³ density polyurethane systems are used. Since it prevents bacteria growth and it is approved for food contact, specially can be applied for food storage tank insulations.



Product range

Akfix RFG 230 (B2 Sınıfı / Class; 30 Yoğunluk / Density)

Akfix RFG 230-P (B2 Sınıfı / Class; 30 Yoğunluk / Density)

Wood Imitation And Decorative Product Systems

These polyurethane systems is designed for the production of wood imitation and decorative products. Because of its resistance to moisture, fire retardancy property and excellent mechanical strength, it is a more favourable material compared to wood. The system is ideal for carton-pierres, mirror frames, table and chair legs, head boards, front coverings for decoration and insulation purposes.

Properties

80-1000 kg/m³ density sytems are used. There are two different application product available injection and spray.



Product range

Akfix WID 150 (B1 Sınıfı / Class; 50 Yoğunluk / Density)

Akfix WID 180 (B1 Sınıfı / Class; 80 Yoğunluk / Density)

Akfix WID 1400 (B1 Sınıfı / Class; 400 Yoğunluk / Density)

Akfix WID 1600 (B1 Sınıfı / Class; 600 Yoğunluk / Density)

Akfix WID 250 (B2 Sınıfı / Class; 50 Yoğunluk / Density)

Akfix WID 280 (B2 Sınıfı / Class; 80 Yoğunluk / Density)

Akfix WID 2400 (B2 Sınıfı / Class; 400 Yoğunluk / Density)

Akfix WID 2600 (B2 Sınıfı / Class; 600 Yoğunluk / Density)

Pipe And Tank Insulation Systems

It is an injection applied polyurethane system. It is specially designed for cold-hot water pipe lines, tank insulation and geothermal pipe lines. It can be applied with spray and injection machines. The system enables production of geothermal pipes up to 12 meters long.

Properties

Generally 38-42 kg/m³ density systems are used. For geothermal pipes 65 kg/m³ density polyurethane systems are used.

Applications

Since it prevents bacteria growth and it is approved for food contact, specially can be applied for food storage tank insulations.



Product range

Akfix JTP 235 (B2 Sınıfı / Class; 35 Yoğunluk / Density)

Akfix JTP 240 (B2 Sınıfı / Class; 40 Yoğunluk / Density)

Akfix JTP 245 (B2 Sınıfı / Class; 45 Yoğunluk / Density)

Packaging Foam Systems

8-15 kg/m³ density packaging foam material which is used in place of styrophors. Without need of any mould, it can take the shape of package box and the material can remain still and stable inside the box. Because of that, it is a preferred packaging foam material especially for glass materials and electronic equipments.

Properties

80-1000 kg/m³ density systems are used. There are two different application product available injection and spray.



Product range

Akfix PAG 215 (B2 Sınıfı / Class; 15 Yoğunluk / Density)

Akfix PAG 115 (B1 Sınıfı / Class; 15 Yoğunluk / Density)



Cold Storage Room Panel Systems

It is a moulding application polyurethane system. This polyurethane system enables production of 12 meters long panels. Because of its excellent bonding strength, it can adhere to metal with no adhesive. Generally it is used for insulation of cold storage rooms for meat, fruit, vegetables and other food products.

Properties

Generally 38-42 kg/m³ density products and based on desired storage temperature 6-8-10-12-15 and 20 cm. thickness panels can be produced. Depending on the machine capacity, with our products we can achieve production with single point injection even for 12mx20 cm size panels.

Applications

Since it prevents bacteria growth and it is approved for food contact, specially can be applied for food storage tank insulations.



Product range

Akfix PNL 130 (B1 Sınıfı / Class; 30 Yoğunluk / Density)

Akfix PNL 135 (B1 Sınıfı / Class; 35 Yoğunluk / Density)

Akfix PNL 140 (B1 Sınıfı / Class; 40 Yoğunluk / Density)

Akfix PNL 230 (B2 Sınıfı / Class; 30 Yoğunluk / Density)

Akfix PNL 235 (B2 Sınıfı / Class; 35 Yoğunluk / Density)

Akfix PNL 240 (B2 Sınıfı / Class; 40 Yoğunluk / Density)

Furniture Industry Polyurethane Systems

Two component polyurethane systems designed for furniture industry. Because of its heat and mechanical resistance, it is more favourable compared to wood material. The system is an environmentally friendly product.

Properties

Generally 700-1000 kg/m³ density products can be used for these systems. Since the product does not expand, it enables the usage of open silicone mould. Easy extraction from the mould is one of the biggest advantage of the product which give opportunity of serial production. System has heat resistance up to 70-80 0C. Because of having low viscosity, system can spread uniformly inside the mould and filler can be added in it.



Product range

Akfix FNT 1000 (B2 Sınıfı / Class; 1000 Yoğunluk / Density)



Frigorific Vehicle And Modular Cabin Systems

It can be applied with injection and stump methods. It is a polyurethane system mainly used for cold chain transportation vehicles insulation. In injection system, it can adhere to CTP or metal with no adhesive.

Properties

For injection applications; generally 38-42 kg/m³ density systems are used. For stump applications; 40-60 kg/m³ density polyurethane systems are used. For our products, we do not encounter the main problem for stump applications; ignition and cleavage problem inside the stump.

Applications

Since it prevents bacteria growth and it is approved for food contact, specially can be applied for food storage tank insulations.



Product range

Akfix FRG 130 (B1 Sınıfı / Class; 30 Yoğunluk / Density)

Akfix FRG 140 (B1 Sınıfı / Class; 40 Yoğunluk / Density)

Akfix FRG 230 (B2 Sınıfı / Class; 30 Yoğunluk / Density)

Akfix FRG 240 (B2 Sınıfı / Class; 40 Yoğunluk / Density)

Sound Insulation Systems

It is designed as sound insulation polyurethane systems. The product is more preferable compared to other materials because of spray application of the system. It is an excellent polyurethane product for high sound level problem areas like; cinemas, discos, bars, and conference rooms.

Properties

Generally 30-35 kg/m³ density systems are used. Because of having 50% open cell structure, system can be used for sound insulation purpose with confidence.

Applications

Since it prevents bacteria growth and it is approved for food contact, specially can be applied for food storage tank insulations.



Product range

Akfix SND 130 (B1 Sınıfı / Class; 30 Yoğunluk / Density)

Akfix SND 230 (B2 Sınıfı / Class; 30 Yoğunluk / Density)



