Atul
touching lives...

polygrip®
Synthetic Rubber & PU Adhesives

RANGE OF FOOTWEAR ADHESIVES

Atul
touching lives...

LEGACY

Founded in 1947 by a legendary Indian, Kasturbhai Lalbhai, Atul Ltd (Atul) is amongst the first companies of independent India. It has the privilege of being the first private sector company of India to be inaugurated by the first Prime Minister of the country, Pandit Jawaharlal Nehru.

PROFILE

The first site of Atul, spread over 1250 acres of land, houses one of the largest and the greenest chemical complexes of its kind in the world. Starting with just a few textile dyes, the company now manufactures over 900 products and over 450 formulations. The company manages complex chemical processes in a responsible way. It has established fruitful and time-tested collaborations with leading multinational companies in the world.

An ISO 9001:2008 and ISO 14000 company, Atul serves its customers from diverse industries such as Adhesives, Agriculture, Animal Feed, Automobile, Construction, Cosmetic, Defence, Dyestuff, Electrical and Electronics, Flavour, Food, Footwear, Fragrance, Glass, Home Care, Horticulture, Hospitality, Paint and Coatings, Paper, Personal Care, Pharmaceutical, Plastic, Polymer, Rubber, Soap and Detergent, Sports and Leisure, Textile, Tyre and Wind energy.

POLYMERS BUSINESS

Atul is a pioneer in manufacturing epoxy resins in India. The Company is one of the largest manufacturers of epoxy resins and hardeners in the country. It has a portfolio of over 450 world class products that have a range of application from bangles, construction chemicals, handicrafts, sports goods to stone processing. The products are marketed and sold under the brand name of Lapox®.

Atul strives to create a leading position in the business-to-consumer segment for its epoxy range of products. Lapox® has a presence across India and is readily available at all hardware, paint and sanitary retail outlets. Lapox® has been training several users to build the required skill sets for specialised epoxy system applications.

In 2010, Atul acquired the Polygrip® brand to market synthetic rubber and polyurethane based adhesives in India. Today, it is amidst the top selling adhesive brands with a wide range of value-added products. Lapox® and Polygrip® products are readily available in the overseas market also, to serve their customers.




Index

FOOTWEAR INDUSTRY

In a simple term, Footwear is nothing but garments worn on the feet. What was once a component of basic necessity has now become a fashion statement across all age groups. Apart from serving ease of movement and avoiding injuries, the main purpose of footwear is protecting one's feet against dangers of the environment, i.e. rough ground texture and extreme climate temperature.

Footwear is in use since early human civilization and was looked upon as a symbol of power and wealth. However in recent times, footwear has become more of an integral element of fashion accessories, thus creating a rise in demand for footwear across the globe.

Modern footwear is crafted using a variety of materials, such as leather, fabric, rubber and plastic which is then categorized into several types of footwear based on the end-users fashion preferences.

- Sports Shoes
- Dress Shoes
- Formal Shoes
- Sandals
- Loafers
- High Heeled
- Sneakers
- Ballet shoes
- Slippers
- Leather Shoes
- Rain Boots
- Winter Boots

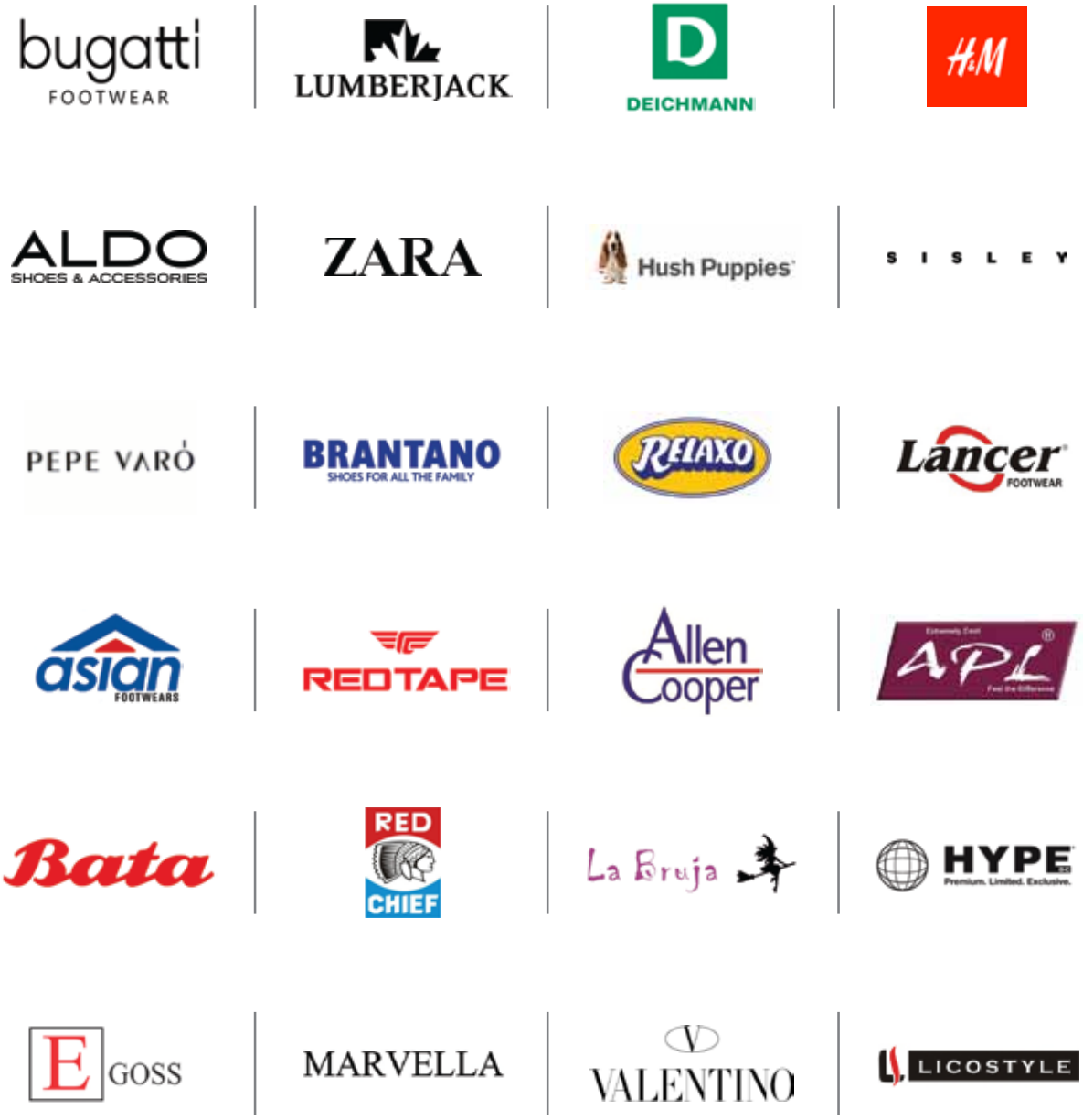
Though fashion is the driving force of sales in the footwear industry, it all comes down to durability and quality, which are one of the many current concerns taken into account during footwear designing and the material selection, by footwear manufacturers.

The selection of each material employed, is very important to ensure a good quality and durable final product. During the manufacturing process of footwear, various materials, along with adhesives, are involved in the sewing, lasting, assembling, finishing, and packing steps. As for the other materials used in footwear manufacturing, the selection of the adhesive plays a very crucial role.

The purpose of these adhesives is both to fill gaps and act as a connecting bridge between the materials intended to be bonded. Therefore it becomes pertinent to design and manufacture footwear using standard and quality adhesives, which ensures long lasting and high boding strength to a variety of substrates used in footwear manufacturing.

With 40 years expertise in synthetic rubber and PU adhesives, **Polygrip**® is one of the leading adhesive brands in India when it comes to Footwear manufacturing. **Polygrip**® is happy to serve the legendary brands in footwear industry such as Hush Puppies, Red Tape, ZARA, H&M, Bata and Relaxo to name a few.

Our esteemed clients



SYNTHETIC RUBBER BASED ADHESIVES

polygrip® S 709

40 years of expertise

Ideal for upper making

Polygrip® S 709 is a dark brown coloured synthetic rubber based adhesive. It is a multipurpose adhesive suitable for bonding variety of substrates such as rubber sole, leather sole, EVA, rexine, and upper sole.

Features

Long tack retention time
Excellent tack quality
Low smell
Good coverage
Excellent water rüsistance
High bond strength

Applications

Gents sandal
Casual Shoe
Safety shoe and
heavy duty footwear
Ladies chappal
Purse

Typical technical data

Parameters	Ranges
Colour and appearance	Dark brown medium viscous liquid
Density at 30°C	0.80 - 0.84 g/ml
Viscosity at 30°C	1000 - 1500 cps
*Tack retention time	Maximum 30 minutes

* Tack retention time (open time) is generally measured after evaporation of solvent once adhesives applied in thin film. It may vary depending upon room temperature and humidity condition

Method of application

1. Stir adhesive well
2. The surfaces to be bonded should be clean, dry and free of oil and grease stains
3. Apply Polygrip® S 709 on both the surfaces uniformly
4. Allow evaporation of solvents for approximately 5-10 mins at room temperature from both the surfaces to develop tack
5. Once the adhesive becomes dry, press both the surfaces together, ensuring uniform contact
6. Optimum bond strength is achieved after 24 hours curing at room temperature

PACKAGING UNITS
100 ml
200 ml
500 ml
1 litre
5 litre
30 litre

polygrip® SP 809

Premium grade for upper making

Polygrip® SP 809 is a yellow coloured synthetic rubber based adhesive. It is a multipurpose adhesive suitable for bonding variety of substrates such as rubber sole, leather sole, EVA sole and rexine.

Features

High bond strength
Excellent tack quality
Mild smell
Good coverage
Excellent water resistance

Applications

Gents sandal
Casual Shoe
Safety shoe and heavy duty footwear
Ladies chappal

Typical technical data

Parameters	Ranges
Colour and appearance	Light yellow medium viscous liquid
Density at 30°C	0.82 - 0.86 g/ml
Viscosity at 30°C	1050 - 1500 cps
*Tack retention time Coverage single side application in specific lab conditions	Max- 20 minutes 5-6 m sq/litre

* Tack retention time (open time) is generally measured after evaporation of solvent once adhesives applied in a thin film. It may vary depending upon room temperature and humidity condition.

Method of application

1. Stir adhesive well
2. The surfaces to be bonded should be clean, dry and free of oil and grease stains
3. Apply Polygrip® SP 809 on both the surfaces uniformly
4. Allow evaporation of solvents for approximately 10-15 mins at room temperature from both the surfaces to develop tack
5. Once the adhesives becomes dry, press both the surface together, ensuring uniform contact
6. Optimum bond strength is achieved after 24 hours curing at room temperature

PACKAGING UNITS
1 litre
5 litre
30 litre

polygrip® PLUS 909

40 years of expertise

Ideal for sole attachment and socks application in footwear

Polygrip® PLUS 909 is a dark brown coloured synthetics rubber based adhesives. It is a multi-purpose adhesive suitable for bonding variety of substrates such as rubber sole, Leather sole, EVA, rexine, upper sole. It is a premier product for world class footwear items having excellent durable bond strength and good water and temperature resistance.

Features

High bond strength
Excellent tack quality
Mild smell
Good coverage
Excellent water resistance

Applications

Shoes
Sandal

Typical technical data

Parameters	Ranges
Colour and Appearance	Brownish Yellow viscous liquid
Density at 30°C	0.83 - 0.89 g/ml
Viscosity at 30°C	1800 - 2600 cps
*Tack retention time	Maximum 20 minutes

* Tack retention time (open time) is generally measured after evaporation of solvent once adhesive applied in a thin film. It may vary depending upon ambient temperature and humidity condition.

Method of application

1. Stir adhesive well
2. The surface to be bonded should be clean, dry and free of oil, grease stains
3. Apply Polygrip® Plus 909 on both the substrates uniformly
4. Allow evaporation of solvents from adhesive layer to develop tack (it takes 5-10 mins)
5. Once the adhesive becomes dry, press both the surfaces together, ensuring uniform contact
6. Optimum bond strength is achieved after 24 hours curing at ambient

PACKAGING UNITS
100 ml
200 ml
500 ml
1 litre
5 litre
30 litre

polygrip® EXPO 1009

Ideal for sole attachment and socks application in light coloured footwear

Polygrip® EXPO 1009 is a golden yellow, fast curing and high heat resistant synthetic rubber based adhesive. It is versatile and suitable for most of the substrates rubber, leather, rexine and foam. It is suitable for adhering similar and dissimilar substrates to achieve a strong bond. High coverage can be achieved if used at appropriate environment and processing condition.

Features

High bond strength
Higher coverage
Mild smell
Rapid strength development
Low absorption on foam

Applications

Shoes manufacturing
Leather articles

Typical technical data

Parameters	Ranges
Colour and Appearance	Golden yellow
Density at 30°C	0.85 - 0.89 g/ml
Viscosity at 30°C	2000 - 3500 cps
*Tack retention time	Maximum 30 minutes

* Tack retention time (open time) is generally measured after evaporation of solvent once adhesive is applied in a thin film. It may vary depending upon ambient temperature and humidity condition.

Method of application

1. Stir adhesive well
2. The surface to be bonded should be clean, dry and free of oil and grease stains
3. Apply Polygrip® EXPO 1009 on both the substrates uniformly
4. Allow evaporation of solvents from adhesives layer to develop tack (it takes 5-10 mins)
5. Once the adhesive becomes dry, press both the surfaces together, ensuring uniform contact
6. Optimum bond strength is achieved after 24 hours curing at ambient

PACKAGING UNIT

30 litre

WTP 888

Translucent adhesive for light coloured leather application

Polygrip® WTP 888 is a translucent synthetic rubber based adhesive. This adhesive is versatile and suitable for most of the substrates including permanent bonding of leather to leather, leather to soles made of MCR, EVA, rubber, cork bonding of foam to rexine, metal and plastics in furniture.

Features

Translucent
High bond strength

Applications

Boxes of footwear
Upholstery fixing
Seat making
Interior fabric lining attachment in luggage manufacturing

Typical technical data

Property	Unit	Test method	Value
Appearance	-	-	Whitish
Density at 30°C	g/ml	-	0.80 - 0.84
Viscosity at 30°C	cps	ASTM D 2196	1050 - 1500
*Tack retention time	Minutes	-	Max. 30

* Tack retention time (open time) is generally measured after evaporation of solvent once adhesive applied in a thin film. It may vary depending upon ambient temperature and humidity condition.

Method of application

1. Surface must be completely clean, dry, and free of oil, grease and foreign particles
2. Apply adhesive on both the surfaces with the help of a brush or appropriate machine
3. Apply second coat (if required) after 5-10 minutes of first coat
4. Allow to evaporate the solvent for 5-10 minutes before bonding. Optimum bond strength can be achieved if open time is not more than 30 minutes
5. Immediately after bonding the substrates, apply adequate pressure on the component to achieve strong adhesion
6. In order to achieve optimum strength, allow components to store for at least 24 hours at ambient conditions

PACKAGING UNITS
5 litre
30 litre

polygrip® SS 999

Single side application and long tack retention adhesive with pale yellow colour

Polygrip® SS 999 is a pale yellow coloured synthetic rubber based contact adhesive. This product is designed to provide long tack retention time, excellent tack and light colour. It is recommended for bonding various substrates like EVA, foam, leather and canvas for single side applications in footwear industries.

Features

Long tack retention time
Single side application
No benzene
Light colour

Applications

Footwear
Luggage
Handicraft
Purse and wallet
Leather belts

Typical technical data

Property	Unit	Test method	Typical range
Appearance	-	Visual	Pale yellow viscous liquid
Density at 30°C	g/ml	-	0.83 - 0.88
Viscosity at 30°C	cps	ASTM D 2196	1300 - 1700
*Tack retention time	Hours	-	Max. 12

* Tack retention time (open time) is generally measured after evaporation of solvent once adhesive applied in a thin film. It may vary depending upon ambient temperature and humidity condition.

Method of application

1. Surface must be completely clean, dry, and free of oil, grease and foreign particles
2. Prior to use, stir adhesive well and make it homogeneous
3. Apply adhesive uniformly in a thin layer on single side of the substrates to be bonded with a brush, spatula or any suitable tool
4. Allow evaporation of solvents from adhesive layer to develop tack. The evaporation of solvent may take 5-10 minutes, which depends upon ambient temperature and humidity
5. In case of absorbing substrate, apply second coat and allow drying for 5-10 minutes
6. Assemble both the substrates with uniform contact pressure to achieve intimate contact without air pockets
7. The optimum bond strength is achieved after 24 hours

PACKAGING UNIT

30 litre

polygrip® SR 100

Single side application and long tack retention adhesive with light colour

Polygrip® SR 100 is pale yellow coloured synthetic rubber based contact adhesive. This product is designed to provide long open time, excellent tack and light colour. It is recommended for bonding various substrates like EVA, foam, leather and canvas for single side applications in footwear industries.

Features

Long tack retention time
Single side application
No benzene
Light colour

Applications

Footwear
Luggage
Handicraft
Purse and wallet
Leather belts

Typical technical data

Property	Unit	Test method	Typical range
Colour & Appearance	-	Visual	Pale yellow viscous liquid
Density at 30°C	g/ml	-	0.83 - 0.88
Viscosity at 30°C	cps	ASTM D 2196	1800 - 2200
*Tack retention time	Hours	-	Max. 12

* Tack retention time (open time) is generally measured after evaporation of solvent once adhesive applied in a thin film. It may vary depending upon ambient temperature and humidity condition.

Method of application

1. Surface must be completely clean, dry, and free of oil, grease and foreign particles
2. Prior to use, stir adhesive well and make it homogeneous
3. Apply adhesive uniformly in a thin layer on single side of the substrates to be bonded with a brush, spatula or any suitable tool
4. Allow evaporation of solvents from adhesive layer to develop tack. The evaporation of solvent may take 5-10 minutes, which depends upon ambient temperature and humidity
5. In case of absorbing substrate, apply second coat and allow drying for 5-10 minutes
6. Assemble both the substrates with uniform contact pressure to achieve intimate contact without air pockets
7. The optimum bond strength is achieved after 24 hours

PACKAGING UNIT

30 litre

NATURAL RUBBER ADHESIVE

polygrip® NR

40 years of expertise

Ideal for upper making

Polygrip® NR is a natural rubber based contact adhesive. It is recommended for temporary bonding required for holding substrates before stitching. Polygrip® NR is recommended to bond various soft substrates such as leather, foam and fabric.

Features

Good coverage
Fast drying
Mild smell
Ease of application

Applications

Footwear
Luggage
Leather article

Typical technical data

Parameters	Ranges
Colour and appearance	Translucent and low viscous liquid
Density	0.78 - 0.82 g/ml
Viscosity at 30°C	600 - 1200 cps
*Tack retention time	Maximum 5 minutes

* Tack retention time (open time) is generally measured after evaporation of solvent once the adhesive is applied in a thin film. It may vary depending upon room temperature & humidity condition.

Method of application

1. Prior to use, stir the adhesive well to get a homogeneous material
2. Apply the adhesive in a thin layer in single direction on both the substrates with a brush, spatula or any other tool. Allow an open time of approximately 2-3 minutes depending on room temperature conditions
3. Assemble with uniform contact pressure, so that no air pockets are there

PACKAGING UNITS
500 ml
30 litre

TOLUENE FREE ADHESIVES

polygrip® NR (TF)

Polygrip® NR (TF) is a natural rubber (crape solution) based toluene free adhesive. Polygrip® NR (TF) is recommended for temporary bonding before stitching. This adhesive is suitable for substrates such as leather, foam and fabric.

Features

Good coverage
Fast drying
Mild smell
Ease of application

Applications

Footwear
Luggage
Small leather articles

Typical technical data

Property	Unit	Test method	Typical range
Appearance	-	-	Whitish
Density at 30°C	g/ml	-	0.63 - 0.72
Viscosity at 30°C	cps	ASTM D 2196	600 - 1200
*Tack retention time	Minutes	-	Max. 30

* Tack retention time (open time) is generally measured after evaporation of solvent once adhesive applied in a thin film. It may vary depending upon ambient temperature and humidity condition.

Method of application

1. Apply adhesive on both the substrates with the help of a brush or appropriate tool
2. Apply second coat (if required) after 5-10 minutes of first coat
3. Allow to evaporate the solvent for 5-10 minutes before bonding. Optimum bond strength can be achieved if open time is not more than 30 minutes. Open time is subjective and depends on environmental conditions such as temperature, humidity and foreign particles in air.
4. Immediately after bonding the substrates, apply adequate pressure on the component to achieve strong adhesion
5. In order to achieve optimum strength, allow components to store for at least 24 hours at ambient conditions

PACKAGING UNIT

30 litre

polygrip® EXPO 1009 (TF)

Fast drying and high heat resistant adhesive

Polygrip® EXPO 1009 (TF) is a golden yellow, fast curing and high heat resistant toluene free synthetic rubber based adhesive. This adhesive is versatile and suitable for most of the substrates including rubber, leather, wood, rexin, canvas and foams. It is also suitable for adhering similar and dissimilar substrates to achieve strong bonds. High coverage can be achieved if used at appropriate environmental and processing conditions.

Features

Heat resistant bond
High coverage
Mild smell
Rapid strength development
Low absorption on foam

Applications

Shoes manufacturing
Leather articles
Insulation
Mattress
Carpets
Automotive interiors
Furniture

Typical technical data

Property	Unit	Test method	Typical range
Appearance	-	-	Golden yellow
Density at 30°C	g/ml	-	0.85 - 0.90
Viscosity at 30°C	cps	ASTM D 2196	1800 - 3000
*Tack retention time	Minutes	-	Max. 30

* Tack retention time (open time) is generally measured after evaporation of solvent once adhesive applied in a thin film. It may vary depending upon ambient temperature and humidity condition.

Method of application

1. Ensure that the substrates to be bonded are clean, dry and free of oil, grease and foreign particles such as dust and rust
2. Prior to use, stir adhesive well and make it homogeneous
3. Apply adhesive uniformly in a thin layer on both the substrates to be bonded with a brush, spatula or any suitable tool
4. Allow evaporation of solvents from adhesive layer to develop tack. The evaporation of solvent may take 5-10 minutes, which depends upon ambient temperature and humidity
5. Assemble both the substrates with uniform contact pressure to achieve intimate contact without any air pockets
6. The optimum bond strength is achieved after 24 hours

PACKAGING UNIT

30 litre

CLEANER, PRIMERS AND HARDENERS

PG 60

Polygrip® PG 60 is a cleaner, recommended for cleaning of PVC and PU substrates. It removes residual plasticizers, mould release agents, oil, grease and dirt from surface. Thoroughly cleaning with Polygrip® PG-60 improves bond strength.

Features

Long tack retention time
Single side application
No benzene
Light colour

Applications

Footwear
Luggage
Handicraft
Purse and wallet
Leather belts

Typical technical data

Property	Typical value
Appearance	Transparent liquid
Density at 30^{0}C	0.75 - 0.80 g/ml

Method of application

1. Use of padding cloth, sponge, brush is recommended for application of Polygrip® PG 60
2. After application of Polygrip® PG 60, allow the substrates to dry for 2-3 minutes

PACKAGING UNITS

1 litre
30 litre

PG 30

TPR PRIMER

It is a two-component system consisting of powder and liquid for TPR soles. It improves bonding strength for TPR soles.

Typical technical data

Property	Typical value	
	PG 30 Solvent	PG 30 Powder
Appearance	Clear liquid	White powder
Density at 30°C	0.86 - 0.90 g/ml	

Method of application

1. 2.5% (w/v) of PG 30 powder is mixed in PG 30 solvent in a glass or aluminium bottle. This mixture is to be used within 24 hours
2. TPR soles are first to be cleaned with solvent to remove dust and oil. If required, clean the substrate with PG 60 cleaner and allow it to dry for 10 minutes
3. The cleaned soles are then to be coated with the prepared primer solution
4. Treated soles should be kept for drying at ambient temperature for 30-40 minutes
5. The recommended PU adhesive system needs to be applied on treated soles

PACKAGING UNITS

Polygrip® PG 30 (Solvent): 1 & 30 litre

Polygrip® PG 30 (Powder): 25 g

PG 40

EVA PRIMER

Polygrip® PG 40 is a transparent liquid recommended as a primer for EVA substrates before adhesive application.

Typical technical data

Property	Typical value
Appearance	Transparent liquid
Density at 30°C	0.82 - 0.86 g/ml

Method of application

1. Bonding surface must be completely clean, dry and free of oil, grease and foreign particles. Polygrip® PG 60 is recommended for cleaning purpose
2. Use of padding cloth, sponge or brush is recommended for application of Polygrip® PG 40
3. Allow it to dry for 3-5 minutes at ambient temperature
4. The recommended PU adhesive system needs to be applied on treated soles

PACKAGING UNIT

1 litre

PT PRIMER

Transparent EVA Primer

Polygrip® PT Primer is a transparent liquid recommended as a primer for EVA substrates before adhesive application for improving bonding strength. It is specially designed for printing on EVA surface.

Typical technical data

Property	Unit	Test method	Value
Appearance	-	visual	Transparent liquid
Density at 30°C	g/ml	-	0.82 - 0.86

Method of application

1. Bonding surface must be completely clean, dry and free of oil, grease and foreign particles. Polygrip® PG 60 is recommended for cleaning purpose
2. Use of padding cloth, sponge or brush is recommended for application of Polygrip® PT Primer
3. Allow it to dry for 3-5 minutes at ambient temperature

PACKAGING UNITS
1 litre
30 litre

APP 810

Primer for PVC to leather bonding

Polygrip® APP 810 is a colourless liquid recommended as a primer for PVC to leather bonding before adhesive application.

Typical technical data

Property	Typical value
Appearance	Colourless liquid
Density at 30°C	0.78-0.85 g/ml

Method of application

1. Bonding surface must be completely clean, dry and free of oil, grease and foreign particles
2. Use of a padding cloth, sponge or brush is recommended for application of Polygrip® APP 810
3. For strong bonding primer PG 30 is recommended to apply on cleaned surface of TPR substrate
4. Primer PG 40 is recommended to apply on cleaned surface of EVA substrates
5. Allow it to dry for 3-5 minutes at ambient temperature

PACKAGING UNIT

30 litre

polygrip HR

40 years of expertise

Isocyanate hardener for PU adhesives

It plays a very vital role for giving optimum bonding strength to adhesive. The incorporation of HR with PU will exhibit optimum mechanical, thermal and adhesion properties of footwear after 24 hours.

PACKAGING UNITS
100 g
250 g
500 g
1 kg

polygrip HR (CLEAR)

Colourless modified isocyanate hardener

It is a transparent hardener for light coloured footwear which gives colourless bond line to ensure no marks of bond line is left after drying. It plays a very vital role for giving optimum bonding strength to adhesive. The incorporation of HR Clear with PU will exhibit optimum mechanical, thermal and adhesion properties of footwear after 24 hours.

PACKAGING UNIT
1 kg

PU ADHESIVES

PU 6000

Premium adhesive for sports shoes

Polygrip® PU 6000 is used in combination with hardener Polygrip® HR Clear in a specified ratio. The system is specially designed for the manufacturing of sports shoes where high green tack and rapid grabbing is required. It is also recommended for bonding sole to upper component in the footwear segment. This adhesive system provides a strong durable bond with synthetic substrates like PVC, PU, EVA, Phylon, TPR and leather.

Features

Rapid grabbing
High green tack
Colourless
No benzene
Water resistant and durable bond

Applications

Sport shoes
Safety and Industrial shoes
Heavy duty sandals

Typical technical data

Property	Unit	Test method	Typical range	
			Resin PU 6000	Hardener HR clear
Colour & Appearance	-	Visual	Colourless visccus liquid	Colourless liquid
Density at 30°C	g/ml	-	0.82 - 0.89	0.85 - 0.92
Viscosity at 30°C	cps	ASTM D 2196	900 - 1500	-
Mixing ratio	parts by weight	-	100	5

Method of application

1. Clean the soles with Polygrip® PG 60 to remove oil, grease, dust and dirt etc. Allow them to dry for 5 minutes at ambient conditions
2. Apply relevant primers to substrates, depending upon the type of substrates such as EVA, TPR and PU. Allow them to dry for at least 20-30 minutes at ambient temperature
3. Thoroughly roughen and clean the upper component by using suitable tools
4. Take 100 grams of Polygrip® PU 6000 in a clean container and add 5 parts by weight of hardener Polygrip® HR Clear. Mix them thoroughly to get a homogeneous mixture. The mixture thus prepared is suitable to use up to 4 hours at ambient conditions
5. Apply adhesive uniformly on both the components to be bonded by using a brush or suitable tools
6. Allow adhesive to dry for 20-30 minutes at ambient temperature
7. In case of porous (absorbing) substrate, apply second coat of adhesive and allow drying for 20-30 minutes at ambient temperature
8. Allow substrates to heat at 70-75°C for 3-5 minutes in an appropriate equipment
9. Bond both the components immediately in hot condition with firm and uniform pressure in an appropriate device
10. Allow components to cool at room temperature under full pressure. To achieve faster production, components can be cooled with the help of a chilling unit under pressure
11. After cooling, remove the excess adhesive from the components carefully with the help of a crepe rubber roll
12. To achieve optimum strength, allow components to cure for 24 hours at ambient conditions

PACKAGING UNITS
5 litre
30 litre

PU 4000

Superior strength adhesive for PU, TPR, EVA and rubber sole to upper

Polygrip® PU 4000 is a solvent based premium polyurethane adhesives, which is used in combination with hardener Polygrip® HR in a specified ratio. It is specially designed for manufacturing of safety and industrial shoes for high strength bonding. It is also recommended for bonding sole to upper component in the footwear segment.

Features

Good bonding with PVC, PU, TPR and EVA sole
Good coverage
Mild smell
Colourless
Water resistance bonds

Applications

Casual shoe
Safety shoe and heavy duty footwear

Typical technical data

Property	Typical range	
	PU 4000	HR
Colour & Appearance	Colourless medium viscous liquid	Dark brown liquid
Density at 30°C	0.82 - 0.88 g/ml	1.18 - 1.30
Viscosity at 30°C	1050 - 1800 cps	-
Mixing ratio	100	5

Method of application

1. Clean the sole with Polygrip® PG 60 to remove oil, grease and dust. Allow it to dry for 5 minutes
2. Apply relevant primer to substrate, depending upon the type of substrates such as EVA, TPR and PU. Allow the primer to dry for at least 20-30 mins after application
3. Take 100 g of Polygrip® PU 4000 in a clean container and add 5 parts of hardener Polygrip® HR by weight. The prepared mixture is suitable to use up to 4 hours
4. Apply a thin layer on sole as well as upper substrate and allow it to dry at room temperature for 20-30 mins
5. Heat both the substrate at 70°C – 75°C in an appropriate equipment
6. Bond both the components immediately in hot condition with firm and uniform pressure in an appropriate device
7. Allow the finished footwear to cool down at room temperature
8. Optimum bond strength is achieved after 24 hours curing at room temperature

PACKAGING UNITS

1 litre
5 litre
30 litre

polygrip® PU 3000

40 years of expertise

High strength adhesive for PU, TPR, EVA and rubber sole to upper

Polygrip® PU 3000 is a solvent based premium polyurethane adhesive, especially designed for manufacturing of safety & industrial shoes for high strength bonding. It is also recommended for bonding sole to upper component in the footwear segment. This adhesives system provide durable bond with synthetic substrates like PVC, PU, EVA, phylon, TPR and leather.

Features

Good bonding with PVC, PU, TPR and EVA sole
Good coverage
Mild smell
Colourless
Excellent water resistance

Applications

Gents sandal
Casual Shoe
Safety shoe and
heavy duty footwear

Typical technical data

Property	Typical range	
	PU 3000	HR
Colour & Appearance	Colourless medium viscous liquid	Dark brown liquid
Density at 30°C	0.82 - 0.88 g/ml	1.18 - 1.30
Viscosity at 30°C	1050 - 1800 cps	-
Mixing ratio	100	5

Method of application

1. Clean the sole with Polygrip® PG 60 to remove oil, grease and dust. Allow it to dry for 5 minutes
2. Apply relevant primer to substrate, depending upon type of substrate such as EVA, TPR and PU. Allow the primer to dry for at least 20-30 mins after application
3. Take 100 g of Polygrip® PU 3000 in a clean container and add 5 parts of hardener Polygrip® HR by weight. The prepared mixture is suitable to use up to 4 hours
4. Apply a thin layer on sole as well as upper substrate and allow it to dry at room temperature for 20-30 mins
5. Heat both the substrate at 70°C – 75°C in an appropriate equipment.
6. Bond both the components immediately in hot condition with firm and uniform pressure in an appropriate device
7. Allow the finished footwear to cool down at room temperature
8. Optimum bond strength is achieved after 24 hours curing at room temperature

PACKAGING UNITS
1 litre
5 litre
30 litre

polygrip® PU 2000

Ideal for bonding PU sole to synthetic upper

Polygrip® PU 2000 is a solvent based polyurethane adhesive to provide durable bond with synthetic substrates like PVC, PU, EVA, phylon, TPR and leather.

Features

Good coverage
Low smell
Colourless

Applications

Ladies sandal
Ladies chapels

Typical technical data

Property	Typical range	
	PU 2000	HR
Colour & Appearance	Colourless medium viscous liquid	Dark brown liquid
Density at 30°C	0.82 - 0.86 g/ml	1.18 - 1.30
Viscosity at 30°C	800 - 1200 cps	-
Mixing ratio	100	5

Method of application

1. Clean the sole with Polygrip® PG 60 to remove oil, grease and dust. Allow it to dry for 5 minutes
2. Apply relevant primer to substrate, depending upon the type of substrates such as EVA, TPR and PU. Allow the primer to dry for at least 20-30 mins after application
3. Take 100 g of Polygrip® PU 2000 in a clean container and add 5 parts of hardener Polygrip® HR by weight. The prepared mixture is suitable to use up to 4 hours
4. Apply a thin layer on sole as well as upper substrate and allow it to dry at room temperature for 20-30 mins
5. Heat both the substrate at 70°C – 75°C in an appropriate equipment
6. Bond both the components immediately in hot condition with firm and uniform pressure in an appropriate device
7. Allow the finished footwear to cool down at room temperature
8. Optimum bond strength is achieved after 24 hours curing at room temperature

PACKAGING UNITS
1 litre
5 litre
30 litre

polygrip® PU 1000

40 years of expertise

Economical adhesive for bonding PVC sole to synthetic upper and synthetic strips preparation

Polygrip® PU 1000 is a solvent based PU adhesive to provide durable bond with synthetic substrates like PVC, PU, EVA, phylon, TPR and leather especially.

Features

Economical
Good coverage
Low Smell
Colourless
Good bond strength

Applications

Ladies sandal
Ladies chappal
Strip application for ladies chappal

Typical technical data

Property	Typical range	
	Resin - PU 1000	Hardener - HR
Colour & Appearance	Colourless low viscous liquid	Dark brown liquid
Density at 30°C	0.82 - 0.86 g/ml	1.18 - 1.30
Viscosity at 30°C	400 - 800 cps	-
Mixing ratio	100	5

Method of application

1. Clean sole with Polygrip® PG-60 to avoid oil, grease & dust. Allow to dry for 5 minutes
2. Depending upon type of substrate like EVA, TPR & PU, apply relevant primer. Allow the primer to dry for at least 20-30 mins
3. Take 100 g of Polygrip® PU 1000 in a clean container and add 5 parts by weight of hardener Polygrip® HR. Prepared Mixture is suitable to use up to 4 hours
4. Apply in thin layer on sole as well as upper substrate and allow to dry at room temperature for 20-30 mins
5. Heat both the substrate at 70°C – 75°C in appropriate equipment
6. Bond both the components immediately in hot condition with firm and uniform pressure in appropriate device
7. Allow the finished footwear to cool down at room temperature.
8. Optimum bond strength is achieved after 24 hours curing at room temperature

PACKAGING UNITS
1 litre
5 litre
30 litre

Contact us

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touching lives...

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