



UV and abrasion resistant PU coating





LEGACY

Founded in 1947 by a legendary Indian, Shri 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 1,250 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 1,380 products and formulations. The Company manages complex chemical processes in a responsible way. It has established fruitful and time-tested collaborations with leading multinational companies of the world.

An ISO 9001:2008 and ISO 14001 certified company, Atul serves customers from diverse industries such as Adhesives, Agriculture, Animal Feed, Automobile, Construction, Cosmetics, 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 applications including bangles, construction chemicals, handicraft, sports goods and 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 among the top selling adhesive brands with a diverse range of value-added products.

Polyurethane coating is a tough protective paint applied on exterior and interior structures that are exposed to extreme weather such as scorching heat, gusty winds and pouring rain. Polyurethane coating is highly resistant to such extreme weather conditions and it provides excellent durability combined with good aesthetics. It should be applied for long-term protection of the substrate where significantly lower maintenance is required. Atul Ltd has launched a PU coating called **Lapox® Procoat**, a two-component acrylic polyol and aliphatic isocyanate based polyurethane coating designed to protect the base waterproof layer as well as decorate the substrate.

COMPARISION BETWEEN PU COATING AND ACRYLIC BASED PAINT

Parameters	Lapox® Procoat	Acrylic based paint
UV resistance	Excellent	Good
Abrasion resistance	High	Low
Tensile strength	High	Low
Adhesion strength	Strong	Moderate
Elongation at break	Good	Average
Solar reflective index (SRI)	Excellent	Good
Chemical resistance	Good	Average
Fungus and algae resistance	Good	Good
Gloss	High	Low
Weather resistant	Excellent	Good
Longevity	6 - 9 years	5 - 7 years
Water resistance	Good	Average



UV resistant
Protects the base epoxy layer, thereby increases the life of structure



Weather resistant
Protects the structure from extreme weather conditions



Abrasion resistant
Does not tear and wear easily, thus providing longer life



Dirt resistant
Resists dirt pick-up and can be easily washed off by water to maintain the original lustre and colour of coating



Temperature reduction
White PU coating reflects sunlight, helping reduce inside temperature



Glossy effect and colour retention
Increases aesthetic appeal of structure



RECOMMENDED APPLICATIONS

- Lapox® Procoat can be used as a top coat on
- :: The terrace waterproofed by Lapox® Lacrete
- :: Steel and other surfaces exposed to corrosive, marine and chemical environment



TECHNICAL DETAILS

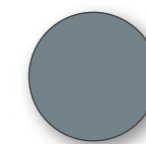
Composition	Acrylic polyol resin with isocyanate hardener with suitable pigmentation
Colour	Available in various shades
Gloss	Glossy
Volume solids	Approximately 45%
Mixing ratio	4:1 (resin : hardener)
Theoretical covering capacity*	11.2 - 15 m ² /ltr
Pot life at 25°C	6-8 hour
Drying time at 30°C	Surface dry : 1 hour Hard dry : 16-hour Full cure : 7 days
Hardener	Use with Lapox® Procoat hardener
Recommended DFT/ coat	30 - 40 microns
Flash point	Resin: 24°C Hardener: 24°C

*Coverage may vary depending upon the surface conditions

Lapox® Procoat can be applied by brush or roller, air spray or airless spray

Application tools	Brush/Roller	Air spray	Airless spray
Recommended thinner	Compatible PU thinner (Lapox® UT-801)	Compatible PU thinner (Lapox® UT-801)	Compatible PU thinner (Lapox® UT-801)
Volume of thinner	0 - 5%	5 - 15%	0 - 10%
Nozzle orifice	-	1.5 - 3 mm	0.28 - 0.33 mm
Nozzle pressure	-	0.3 - 0.4 MPa	10 - 13 MPa

AVAILABLE SHADES



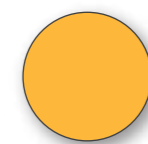
AD Gray



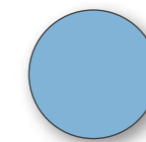
White



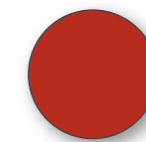
Black



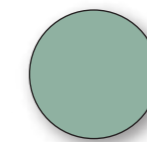
Golden Yellow



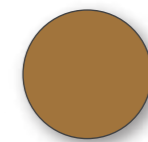
Sky Blue



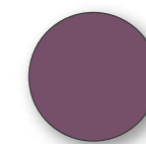
PO Red



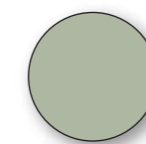
Opaline Green



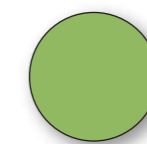
Light Brown



Dark Violet



Light Gray



Sea Green

METHOD OF APPLICATION

- Stir the resin and hardener separately
- If settling is observed in the resin, loosen the settled material with the help of a hand stirrer
- Mix hardener gradually into the resin under continuous stirring in a ratio of 4:1 (resin : hardener) with the help of a power driven stirrer until a homogenous paste is achieved
- Ensure that the substrate is dry, clean and free of contaminants such as oil and grease
- In case of aged epoxy or PU coating, the surface should be sufficiently roughened prior to coating
- Apply a suitable epoxy primer
- Application can be done in 1 or 2 coats depending upon the substrate

SAFETY PRECAUTIONS

- In case of part mixing (which should be avoided), close the lids of containers tightly to avoid contact with atmospheric moisture, since hardener is very susceptible to moisture
- Use the mixed material within the stipulated time of pot life
- Do not apply when temperature falls below 10°C or rises above 50°C and when relative humidity is above 90%
- Do not apply during rain, fog or mist
- Brush and spray equipment should be cleaned with appropriate thinner otherwise equipment is likely to be damaged

Contact us

Head office

Atul 396 020, Valsad
Gujarat, India
Telephone: (+91 2632) 230000

Marketing office

310 B, Veer Savarkar Marg, Dadar (West)
Mumbai 400 028, Maharashtra, India
Telephone: (+91 22) 39876000



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For any queries or suggestions, contact

Customer Support on e-mail at support_polymers@atul.co.in or call at (+91) 96193 73700 | www.atul.co.in

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