

TECHNICAL DATA SHEET

IGL COATINGS™ INDUSTRIAL SOLUTIONS ARMOR

Material no.

Specification

Version

154333

2.1

Revision date

09.07.2026



IGL COATINGS INDUSTRIAL SOLUTIONS ARMOR A TINTABLE BEDLINER FOR TRUCK BED PROTECTION.

Description

IS Armor is a two-component (2-K) bedliner for truck bed protection which provides hard, flexible and strong protection for your truck bed.

Benefits

Reinforced with carbon nanotubes.

Provides protection against impact, mechanical damage, and corrosion.

Resistant to a wide range of chemicals.

Imparts an anti-skid effect

Provides excellent adhesion to steel, aluminum and wood surfaces.

Technical Data

Mixing Ratio

	Spray gun Iwata W-77 with Ø2.5mm nozzle	Spray Gun Schutz spray gun
AR1 (binder) : AR3 (hardener)	4 : 1 (by weight)	
AR2 (colorant)	7 wt. %	
Diluent (For rough texture)	35 wt. %	7 - 28 wt. %
Diluent (For smoother texture)	Add up to 5 - 10 wt. % more	Add up to 35 wt. %

REMINDER: Always test on an inconspicuous area first. Kindly contact your local IGL Coatings representative if you need advice.

Preparation

Step 1: Surface preparation

- Clean the surface using **IGL Wash**.
- Degrease and remove greasy contaminants from the surface using **IGL Multi**.
- Then, remove existing rust using abrasives. Use P80-P180 grit sandpaper to remove stubborn rusts.
- Abrade the whole surface using P80-P180 grit sandpaper and clean the surface with water.
- Immediately, dry the surface using microfiber cloth.
- Prep the surface using **IGL Precoat** to improve the adhesion and the durability of the coating.

Step 2: Mixing the coating formulation

- The temperature during processing should be in the range of 10-30°C (50-86°F), **preferably at 15-25°C (59-77°F)**.
- Mixing the formulation at room temperature is recommended.
- Prepare a 2-liter mixing container.
- Stir **Armor AR1** using the provided stick for at least 1 minute. **AR1** is originally slightly gel-like and will flow easier after stirring.
- Pour **AR1, AR2, AR3**, and **diluent** into the container in order.
- Proceed to stir for at least 2-3 minutes or until the mixture is smooth and well-mixed.
- After the mixing process, the mixture is ready to use. The mixture needs to be used within **60 minutes (Pot-life)**.

Step 3: Application process

- Preferably to conduct the application process at dust free area.
- Please refer to spraying guide for detail on application process using different spray techniques.

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Step 4: Drying and Curing

- **Please refer to spray guide for dry to touch, tack free and cure time for different deposition profile.**
- The thickness of the coating and the surrounding temperature will directly affect the drying time of the coating. The more layers of coating applied will extend the full cure time of the coating.
- Too short interlayer coat time will dampen the texture formation of subsequent coating layer. It is recommended to have interlayer coating close to the end of tack free period for maximum interlayer adhesion and texture retention.
- Do not allow the newly coated surface to be in contact with water for at least 24 hours.
- Do not place any heavy load on the surface before the coating is fully cured (around 5 days).

Safety and Handling

This product does contain hazardous and flammable materials. Please wear appropriate personal protective equipment (PPE) when handling this product. Do not smoke when using this product. For your safety, toxicological data and information on property transportation, storage and use, please read the Safety Data Sheet (SDS) before using any **IGL Coatings products**. The SDS is available upon request via email from regulations@iglcoatings.com

Disposal

Dispose of contents/container in accordance with local and national regulations.

Storage

IS Armor is storage-stable for at least 12 months in originally sealed containers.

IS Armor AR3 is sensitive to moisture. Ensure the cap is closed tightly after use if there are leftovers. Keep the opened containers properly and use up as soon as possible.

The mixed formulation must be used within 60 minutes.

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Description

IS Armor is a two-component (2-K) bedliner for truck bed protection which able to achieve hard, flexible and strong protection for your truck bed.

Spraying Guide

Step 1: Mixing the coating formulation.

- The temperature during processing should be in the range of 10-30°C (50-86°F), **preferably at 15-25°C (59-77°F)**.
- Mixing the formulation at room temperature is recommended.
- Stir the **IS Armor AR1** using the provided stick for at least 1 minute. **AR1** is slightly gel-like originally and will flow easier after stirring.
- Mix all the components (**AR1, AR2, AR3, and diluent**) as suggested in mixing ratio guide below.
- Continue to stir for at least 2-3 minutes or until the mixture is smooth and well-mixed.
- After the mixing process, the mixture is ready to use. The mixture needs to be used within **60 minutes (Pot-life)**.

Mixing Ratio

	HVLP spray gun Iwata W-77 with Ø2.5mm nozzle	Schutz spray gun
AR1 (Binder) : AR 3 (Hardener)	4 : 1 (by weight)	
AR2 (Color tint)	7 wt. %	
Diluent	35 - 45 wt. %	28 - 33%

*Adjust diluent to lower end for rougher texture formation. Adding additional 1 to 2% diluent when sputtering detected.

REMINDER: Always test on an inconspicuous area first prior to actual spraying. Kindly contact your local IGL Coatings representative if you need advice.

Step 2: Spraying Process - HVLP Spray Gun

- Before filing, clean the spray gun using **Diluent** or thinner. Fill the coating mixture into the spray gun gravity cup once ready.
- Adjust the pressure to 5-6 bar (72.5-101 psi). Adjust the spray gun pattern adjusting knob to fully open (3 turns, counting from minimum). The fluid adjusting knob is adjusted to 3 turns.
- It is recommended to spray a test panel before the desired texture is achieved.
- Apply to the cleaned surface with an even sweeping motion, with a distance of 20 – 30 cm (around 1 feet) away from the surface to spray gun nozzle.
- In order to achieve 150 µm thickness of dry film coating and a rougher texture, apply at least 3 layers, with interlayer gap of up to 60 minutes between application of each layer. (The longer the interlayer gap, the rougher the texture).
- If smooth texture is needed, extra 5 - 10% of **Diluent** can be added to reduce the viscosity of the coating. Adjust the viscosity by adding diluent bit by bit. The **Diluent** will affect the content of product VOC. Refer local VOC regulation before using.

Drying time and Curing time

- Dry-to-touch (at 25°C) : 3-5 minutes**
- Tack-free (at 25°C) : 30 minutes**
- Interlayer coat time : up to 60 minutes (depends on desired texture)**
- Cure time (at 25°C) : 5-7 days**
- The thickness of the coating and the surrounding temperature will directly affect the drying time of the coating. The more layers of coating applied will extend the full cure time of the coating.
- Do not allow the newly coated surface in contact with water for at least 24 hours.
- Do not place any heavy load on the surface before the coating is fully cured (around 5 days).

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Step 2: Spraying Process – Schutz Spray Gun

- Adjust the working pressure to the desired pressure, e.g., 4 bar (58 psi).
- To adjust the nozzle length, rotate the provided nut clockwise to the maximum of the groove. Place a small mark on the nut with either permanent marker or any staining device for easy indication on the rotation. Then rotate the nozzle nut counter-clockwise for 12 rotations. Tighten the nozzle to the spray gun.
- Attach the mixture bottle onto Schutz spray gun with siphoning tube immersed into the solution container.
- It is recommended to spray a test panel to observe the effect of spraying with variable distance on the texture roughness.
- In terms of layer combination, it is recommended to spray a heavy layer for the first layer to ensure complete coverage of substrate for effective corrosion mitigation. Applying at least 2 to 3 layers in total with interlayer gap of up to 60 minutes between application of each layer.
- For 2nd layer onwards, medium or light spraying can be selected depending on the texture desired.

Layer	Layer characteristic	Wet Film thickness, μ	Dry film thickness, μ	Usage g/ft ²	Usage g/m ²	Set to touch	Tack Free	Dry Hard
Single	Heavy	$\approx 225\mu$	$\approx 140\mu$	≈ 35	≈ 376	30 min	90 min	180 min
Single	Medium	$\approx 175\mu$	$\approx 100\mu$	≈ 30	≈ 323	10 min	40 min	120 min
Single	Light	$\approx 100\mu$	$\approx 50\mu$	≈ 20	≈ 215			
Double	Heavy + medium		135 μ to 260 μ					
Double	Heavy + light		140 μ to 270 μ					
Triple	Heavy + light + light		170 μ to 300 μ					

Remarks: Ambient temperature 25°C (77°F); Air Pressure 4 bar (≈ 60 psi)

Additional detail

- **Interlayer coat time** : up to 60 minutes
- **Cure time (at 25°C)** : 5-7 days
- The thickness of the coating and the surrounding temperature will directly affect the drying time of the coating. The more layers of coating applied will extend the full cure time of the coating.
- Do not allow the newly coated surface in contact with water for at least 24 hours.
- Do not place any heavy load on the surface before the coating is fully cured (around 5 days).
- For more information on the texture created, please refer to the spraying texture guide.

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Surface Texture Guide

Parameters used	Optical Microscope images
Schutz Spray Gun Heavy + medium 28% Diluent	
Schutz Spray Gun Heavy + light 28% Diluent	
Schutz Spray Gun Heavy + Light + Light 28% Diluent	
HVLP Spray Gun 35% Diluent	

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