



THE RAM

WE ARE NOT COMPETING WITH ANYONE, BUT ONLY WITH OUR OWN HONESTY.

THE RAM FACTORY

DIO PPF

PAINT PROTECTION FILM SERIES

TECHNICAL DATA SHEET

FILMS COVERED BY THIS DOCUMENT

Glow Label | *Red Label* | *Black Label* | *Soft Matte* | *Color Series* | *DIO Heat Block*
DIO Block Stone

DOCUMENT NO.

TR-TDS-DIO-2026-01

REVISION

Rev. 1.0

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2026-07-29

PRODUCTS COVERED

7 films



Typical values for all seven films in the DIO PPF series. Thickness is stated on a mil basis (1 mil = 25.4 μm) and refers to the total construction, excluding the release liner.

	GLOW LABEL	RED LABEL	BLACK LABEL	SOFT MATTE	COLOR SERIES	DIO HEAT BLOCK	DIO BLOCK STONE
IDENTIFICATION							
Film type	Clear	Clear	Clear	Matte	Color	IR Clear	Clear
Application	Body	Body	Body	Body	Body	Glass	Glass
Base film	TPU (USA)	TPU (USA)	TPU (USA)	TPU (USA)	TPU (USA)	IR TPU (USA)	EPU (USA)
Base film supplier	Lubrizol	Argotec	Argotec	Lubrizol	Lubrizol	—	—
Adhesive system	Ashland	Ashland	Ashland	Ashland	Ashland	Ashland	Ashland
CONSTRUCTION							
Thickness mil	7.6	8.2	10	8	8	7.5	7
Thickness μm	193	208	254	203	203	190	178
Adhesive force · initial 30 min, gf/in	$\geq 1,400$	$\geq 1,500$	$\geq 1,500$	$\geq 1,300$	$\geq 1,200$	—	—
Adhesive force · aged 72 h, gf/in	$\geq 1,800$	$\geq 1,800$	$\geq 1,800$	$\geq 1,600$	$\geq 1,500$	—	—
MECHANICAL							
Tensile strength MPa	≥ 20	≥ 20	≥ 20	≥ 20	≥ 20	—	—
Elongation at break %	≥ 250	≥ 250	≥ 250	≥ 250	≥ 250	—	—
OPTICAL							
Gloss 60°, %	≥ 90	≥ 90	≥ 90	≥ 25	≥ 90	—	—
TSER %	—	—	—	—	—	64.7	—
IR rejection %	—	—	—	—	—	96.9	—
UV rejection %	—	—	—	—	—	99	99
Visible light transmittance %	—	—	—	—	—	68.9	—
DURABILITY							
Anti-yellowing ΔE , QUV 1,000 h	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	—	—
Workability grade of 5	5	4	3	5	4	—	—
Chemical resistance pH 3 – 11, grade of 5	4	4	5	3	4	—	—
Warranty period years	10	12	15	8	8	6	2

“—” indicates that the property is not applicable to that film or has not been established. Workability and chemical resistance are relative in-house grades on a 5-point scale, where 5 is highest; workability describes ease of installation, so thicker films grade lower.

Five body films and two glass films. All body films share the same aliphatic TPU platform — US-sourced raw material throughout — and differ in thickness, finish and topcoat grade.

GLOW LABEL

GLOSS CLEAR

BODY

THICKNESS

7.6 mil

193 μm

GLOSS (60°)

≥ 90 %

WARRANTY

10 years

A premium US-sourced TPU film built on our best technology and materials. Well balanced and suited to a wide range of vehicles — the best-value model in the range.

RED LABEL

GLOSS CLEAR

BODY

THICKNESS

8.2 mil

208 μm

GLOSS (60°)

≥ 90 %

WARRANTY

12 years

Superior durability from our most advanced topcoat technology, shielding the paint from harmful substances, oxidation and UV radiation.

BLACK LABEL

GLOSS CLEAR

BODY

THICKNESS

10 mil

254 μm

GLOSS (60°)

≥ 90 %

WARRANTY

15 years

The flagship. Every DIO technology in a single transparent construction at an industry-leading 10 mil, for the highest level of defense.

SOFT MATTE

MATTE CLEAR

BODY

THICKNESS

8 mil

203 μm

GLOSS (60°)

≥ 25 %

WARRANTY

8 years

DIO's proprietary matte finish, accentuating the vehicle's natural body lines with a restrained sense of class.

COLOR SERIES

COLORED

BODY

THICKNESS

8 mil

203 μm

GLOSS (60°)

≥ 90 %

WARRANTY

8 years

A paint-like film that blends style with practicality. Highly impact-resistant, it protects the original paint while transforming the exterior.

DIO HEAT BLOCK

IR PPF — GLASS

GLASS

THICKNESS

7.5 mil

190 μm

IR REJECTION

96.9 %

WARRANTY

6 years

Superior heat blocking, UV protection and glare reduction while clear visibility is maintained — a cooler, more comfortable cabin.

DIO BLOCK STONE

WINDSHIELD PPF

GLASS

THICKNESS

7 mil

178 μm

UV REJECTION

99 %

WARRANTY

2 years

Windshield film on a top-grade US-sourced EPU base, protecting the most critical glass surface against stone chips, scratches and impact. Optical clarity rated excellent.

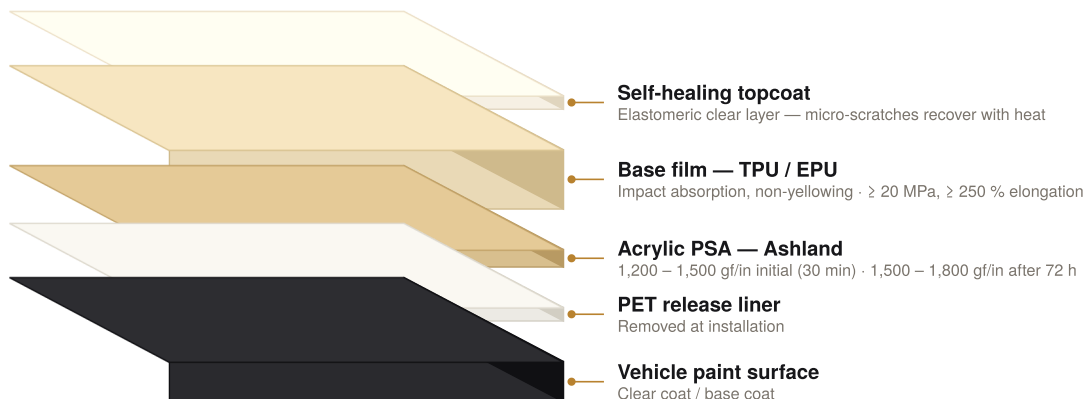
Common properties

Base film — TPU	US-sourced aliphatic thermoplastic polyurethane. Lubrizol (Glow Label, Soft Matte, Color Series) and Argotec, a Mativ brand (Red Label, Black Label).
Base film — IR	DIO Heat Block uses a dedicated US-sourced IR-functional TPU.
Base film — EPU	DIO Block Stone uses a top-grade US-sourced elastomeric polyurethane.
Adhesive	Ashland acrylic pressure-sensitive adhesive, common to the entire range.
Construction	Self-healing topcoat / base film / acrylic pressure-sensitive adhesive / PET release liner
Self-healing	Surface micro-scratches recover with ambient heat or warm water
Thickness basis	Total construction, excluding the release liner. 1 mil = 25.4 μm

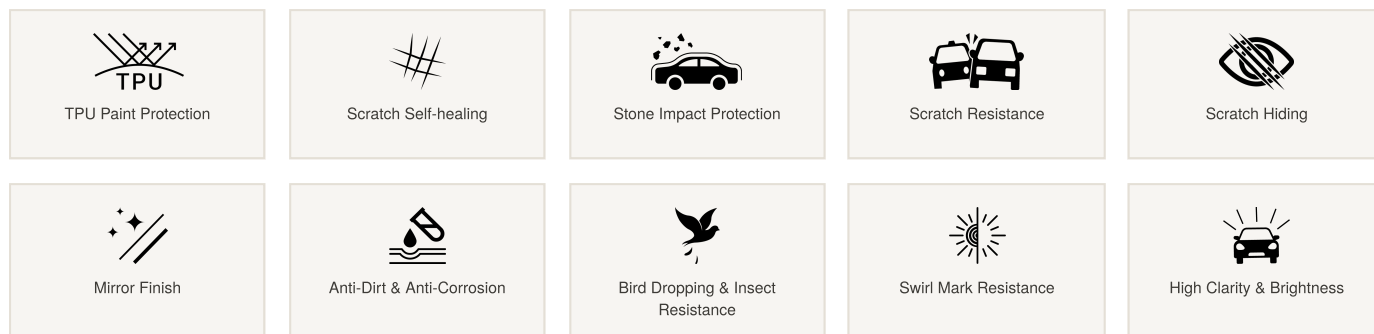
Test methods

Adhesive force	ASTM D3330; peel adhesion in gf/in on a painted steel panel
Tensile strength	ASTM D882
Elongation at break	ASTM D882
Gloss	60° gloss meter, %
Anti-yellowing	Accelerated aging test, QUV 1,000 h, per the official test report
Optical data	TSER, IR rejection, UV rejection and VLT per spectrophotometer measurement on the finished film

Film construction



Feature set



Application

- Thoroughly clean and degrease the surface before application.
- Recommended application temperature: 15 °C – 30 °C.
- Tools: water or soap-water slip solution, squeegee, heat gun, IR lamp.
- Post-heat all wrapped edges and complex curves to set the film memory.
- Allow at least 24 hours to dry before washing or exposure to rain.

Storage & handling

- Storage temperature: 10 °C – 30 °C, below 50 % RH.
- Store rolls horizontally in the original packaging, away from direct sunlight.
- Do not stack heavy objects on the rolls; avoid crushing the core.
- Shelf life: 12 months from the date of manufacture.

Cleaning & care

- Wait at least 48 hours after installation before the first wash.
- Hand wash with a pH-neutral shampoo; avoid abrasive polishes and stiff brushes.
- Keep pressure-washer nozzles at least 30 cm away; never spray into the film edges.
- Remove bird droppings, insect residue and tree sap as soon as possible.
- Sealants and ceramic coatings may be applied; avoid solvent- or abrasive-based compounds.

Important notes

- Values shown are typical properties obtained under laboratory conditions and are not to be construed as specifications. They do not constitute a warranty of any kind.
- Warranty periods refer to THE RAM's limited product warranty and are subject to the terms of the warranty certificate issued with the product. Actual service life depends on climate, exposure, washing regime and maintenance.
- Installation must be carried out by a certified THE RAM installer. Improper installation voids the warranty.
- The user is responsible for determining the suitability of the product for the intended application. Test on an inconspicuous area before full application on aftermarket paint, or on wrapped or re-sprayed panels.



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