



FORMULA SOLUTION



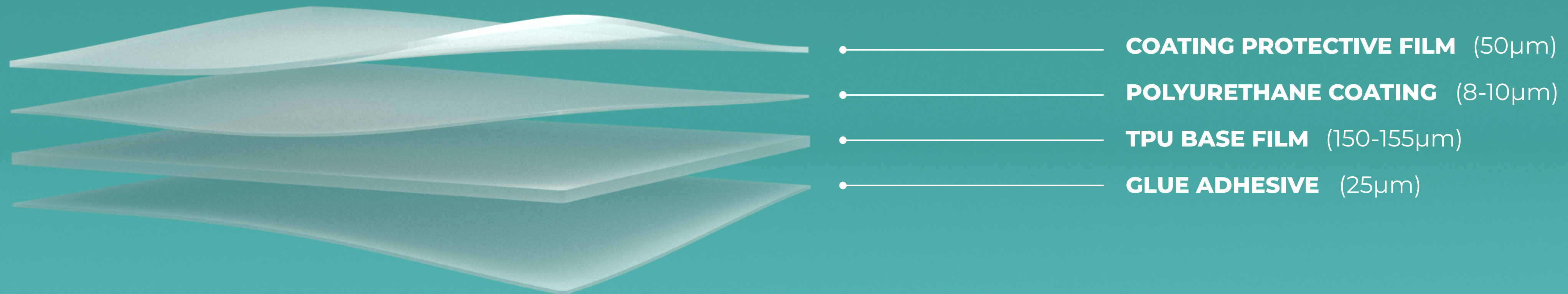
FILM SPECIFICATIONS

CLEAR PAINT PROTECTION FILM

FSG041412 | FSS191225141 | FSH230924 | WINDSCREEN PROTECTION

Advanced thermoplastic polyurethane (TPU) film engineered for optical clarity, impact resistance, and long-term surface protection. Designed to preserve original finishes while delivering self-healing performance and environmental resistance.

PRODUCT CONSTRUCTION



High optical clarity

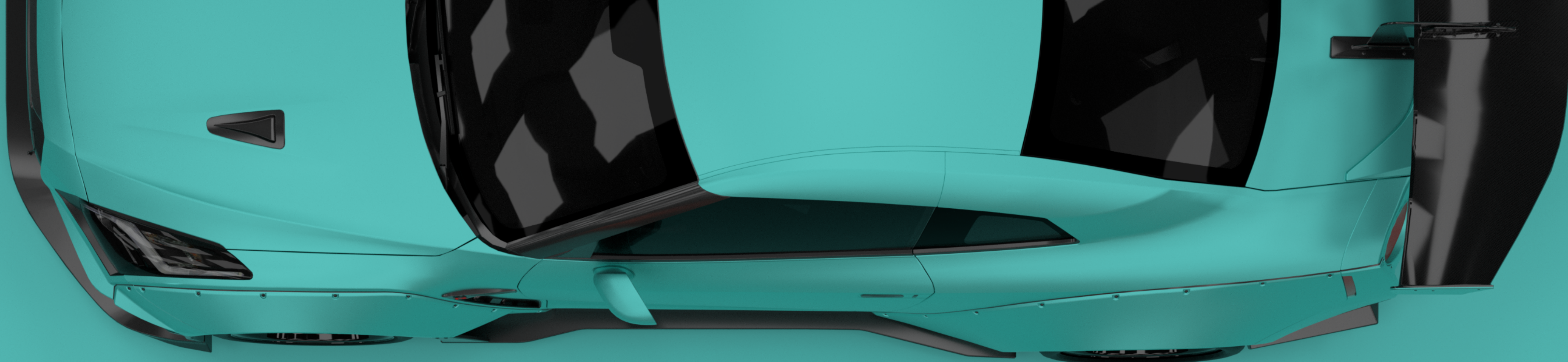
Heat-activated self-healing

Hydrophobic surface

Chemical & stain resistant

UV & environmental durability

High stretch for complex installs



GENERAL CHARACTERISTICS

PROPERTY	TYPICAL VALUES	TESTING CONDITIONS	METHOD / STANDARD
TOTAL THICKNESS	185 ±10 µm	Measured via thickness gauge	Internal
TPU THICKNESS	150–155 µm	–	Internal
ADHESIVE THICKNESS	25 µm	–	Internal
TOP COAT THICKNESS	8–10 µm	–	Internal

OPTICAL PERFORMANCE

PROPERTY	TYPICAL VALUES	TESTING CONDITIONS	METHOD
GLOSS (GLOSS FILM)	95–102 GU	20° / 60° / 85°	Gloss Meter
GLOSS (SATIN FILM)	2–15 GU	20° / 60° / 85°	Gloss Meter
VISIBLE LIGHT TRANSMISSION	84–89%	Visible light transmittance	LS162A

MECHANICAL PROPERTIES

PROPERTY	TYPICAL VALUES	TESTING CONDITIONS	METHOD
TENSILE STRENGTH	31–39 MPa	Peel Force Tester	Internal
ELONGATION AT BREAK	360–400%	–	Internal
PEEL STRENGTH (20 MIN)	1200–1300 gf	Black lacquer panel	Peel Test
PEEL STRENGTH (24 HRS)	1600–1700 gf	Black lacquer panel	Peel Test

CHEMICAL & ENVIRONMENTAL RESISTANCE

PROPERTY	RESULT	TESTING CONDITIONS	METHOD
CHEMICAL RESISTANCE	No detrimental effect	Cleaning agents (30 sec)	Visual
FUEL RESISTANCE	No detrimental effect	Petrol / Diesel (24 hrs)	Visual
ACID RESISTANCE	No detrimental effect	24 hr exposure	Visual
SOAP & WATER RESISTANCE	No detrimental effect	24 hr exposure	Visual

SURFACE PERFORMANCE

PROPERTY	VALUES	TESTING CONDITIONS	METHOD
WATER CONTACT ANGLE	~101°	Hydrophobic testing	Contact Angle Tester
RAIN SPOT RESISTANCE	Pass	1 month outdoor exposure	Visual
INK / STAIN RESISTANCE	Pass	Oil-based pen + alcohol wipe	Double Jay Pen Test

SELF-HEALING PERFORMANCE

PROPERTY	RESULT	TESTING CONDITIONS	METHOD
SCRATCH RECOVERY	Self-healing with heat	Wire brush + heat activation	Visual

AGING PERFORMANCE

PROPERTY	RESULT	TESTING CONDITIONS	METHOD
WEATHERING RESISTANCE	Pass	Outdoor exposure	Visual