

# Technical Data Sheet

## Vunyx® Shield Pro Film.

Introducing Onyx Coatings' latest advancement in automotive enhancement, Vunyx® Shield Pro Film. This sophisticated product transcends conventional paint protection, featuring our pioneering Stain stain-resistant technology. This innovative solution ensures a consistency. Pristine, mirror-like finish for vehicles, minimizing the need for extensive maintenance. Elevate your automotive care standards and spend more time on the road with Vunyx® Shield Pro Film by Onyx Coating.

Custom-tailored for unparalleled business efficiency and superior results, our innovative features include:

- **Adaptive Design:** Our film's superior flexibility ensures easy adaptability around challenging areas like edges, bumpers, and mirrors. This means fewer seams and simpler applications.
- **Precision Liner:** A distinct liner highlights cut lines, ensuring precise applications, which translates to cost savings and minimize wastage.
- **Water-Repellent Essence:** Save on those regular car washes and enjoy a perpetually clean vehicle with our film's inherent hydrophobic properties.
- **Elevated Aesthetics:** Transform vehicles into sheer luxury, boasting a brilliant and radiant gloss.
- **Self-Repair Tech:** Our state-of-the-art polymer tech ensures minor scrapes and scratches become a worry of the past.
- **Assured Protection:** Our 7 years warranty is a testament to our faith in Vunyx® Shield Pro Film, offering robust defense against common wear and tear factors. (Please refer to the warranty terms and conditions [www.onyxcoating.com](http://www.onyxcoating.com)).

- **Resale Value Amplified:** Keep the vehicle's original charm intact, ensuring a favourable market price when upgrading.
- **Dual-Action Topcoat:** This unique topcoat offers a two-fold Défense: it actively repels stains while also boasting a natural water resistance, ensuring your vehicle stays pristine against bird residues, insect marks, and various on-road environmental challenges.

Features Your Customers Will Adore:

- **Easy Application:** The film's design ensures even first-time users find the application process smooth.
- **Enhanced UV Protection:** Shield the car's paint from the harsh rays of the sun (prevent 85% of UV rays), preventing fading and maintaining its vibrant color.
- **Cost Savings:** Long-term protection means fewer visits to repair shops and reduced maintenance costs over the vehicle's lifetime.
- **Peace of Mind:** With Vunyx® Shield Pro Film on the guard, customers can rest easy knowing their investment is securely protected against most external threats.

	TEST ITEM	TEST METHOD	NOMINAL VALUE
PHYSICAL PROPERTIES	Base film Thickness	Micrometer	1.5 mil (40 microns)
	TPU thickness	Micrometer	6 mil (150 microns)
	Product thickness (TC+TPU+PSA)	Micrometer	7.5 mil (190 microns)
	Tensile stress at break	ASTM D882	> 3,200 lbs/in2 (>21.62 MPa)
	Elongation at break (%)	ASTM D882	>350%
GLOSS	Gloss	Adhered to paint panel, 60° gloss per ASTM D523	94.2
ADHESION	Peeling Force of Acrylic Adhesive Layer/20 min	Dry adhered to paint panel, 20 min at 72° F (22° C)	1366gf/inch
	Peeling Force of Acrylic Adhesive Layer/24H	Adhered to paint panel for 24hrs at 176° F (80° C)	2187gf/inch
	Anti yellowing (1000H)		ΔE<1.2
AGING TEST	Heat aging	Adhered to paint panel, 176° F (80° C) for 16 days	Pass, NDE
	Accelerated weathering	ASTM G155 Cycle 7,3,000 hrs	Pass, NDE
IMPACT RESISTANCE	Chip resistance	SAE J400 (Gravelometer)	Pass, NDE
CHEMICAL RESISTANCE	Soap & water	Samples submerged in chemical for 24 hrs followed by visual inspection	Pass, NDE
	Isopropyl alcohol		Pass, NDE
	Mild acid (pH 9+)		Pass, NDE
	Windshield washer fluid		Pass, NDE
	Unleaded gasoline	Samples submerged in chemical for 30 minutes followed by visual inspection in 24 hrs	Pass, NDE
	Motor oil		Pass, NDE
	STAIN RESISTANCE	Sharpie marker	Samples were marked with permanent black sharpie marker and marker removed easily with water after 24 hours.
SELF HEALING	Brass Brush (Lincoln Electric KH582)	Samples were scratched in a circular motion with a brass brush, then visually inspected @15 second intervals until scratches were no longer visible	< 1 minute, no visible scratches
		Samples were scratched in a circular motion with a brass brush, then exposed to mild heat and visual inspected	No Visible Scratches

HC = Hard Coat, TPU = Thermal Plastic Polyurethane, PSA = Pressure Sensitive Adhesive

Adhesion: 180o peel on Instron tensile tester

NDE: No Detrimental Effect

**NOTE: all values are nominal values and should not be used for specification purposes**

**SHELF LIFE:**

Onyx Coating GmbH recommends using Vunyx® Shield Pro Film within one year from date of purchase.

Optimum storage conditions for Vunyx® Shield Pro Film are 40 °F (4 °C) to 90 °F (32° C), and 40% to 60% relative humidity.