

TUFF

Ultra-Premium Exterior Emulsion Paint

Description & uses: - **TUFF** is a 100% pure acrylic water based emulsion that's offers unmatched high-performance finish for exterior walls. It can offer 7 years' of performance warranty in terms of color retention, film integrity and resistance towards algal growth.

For exterior & interior use.

- **TUFF** available in Matt /Silk.
- Also available in white and bases.
- Conforms to Egyptian standard specification 1539 /2021.
- Designed for application over masonry surfaces, stucco, concrete blocks, fair faced concrete, wood & gypsum board after suitable priming.
- Environmentally friendly product. Its low VOC and APEO free product (compliant to ASTM D4252-89/2017 and USEPA 24).

Product features:

- Best in the class coverage with excellent workability plus very good opacity & whiteness.
- Excellent weather fastness performance (protection towards UV rays)
- Resists cracking, peeling & chalking.
- Excellent wet abrasion (high resistance to wash-ability)
- Very good resistance for weather conditions (humidity, rain, hot temperature, and seashore conditions)
- Resistant to alkaline substrates.

- Breathable coating with Anticarbonation performance
- Good crack bridging ability with high Dirt pick up resistance

<u>Properties</u> <u>Test certified by</u> <u>WIMPI</u> <u>Laboratories LLC</u> <u>(IAS Accredited)</u>	Finish	Matt / smooth silk
	Color	Available in white & colors, can be tinted using SCIB computer tinting system.
	Density at 25°C	Matt: Approx 1.47 Kg / Ltr.(White) Silk: Approx 1.27 Kg/ Ltr (White)
	Volume Solid (ISO 3233-2)	Matt: 35 + or -2 (White) Silk: 32 + or -2 (White)
	VOC (gm/Ltr.) [USEPA 24]	12(g/l) according to EU regulation
	Diluents / Thinner	Water
	Pull off Adhesion (ASTM D4541-17)	Matt: 2.36 N/mm ² Silk: 2.59 N/mm ²
	Crack Bridging Ability (BS EN 1062-7:2004)	Matt: 0.75 mm (100μ), 1.0 mm (120μ) Silk: 1 mm (100μ), 1.2 mm (120μ)
	Wash ability / wet scrub resistance (DIN 53778)	Matt: Over 30000 strokes or 15000 cycles Silk: Over 50000 strokes or 25000 cycles
	Carbon-dioxide diffusion resistance (BS EN 1062-6:2002) Grade: C1 (BS EN 1062-1:2004-08)	Matt: Carbon-dioxide diffusion co-efficient (gm/m ²): 7.55* 10 ⁻⁷ Sd: 597 m Silk: Carbon-dioxide diffusion co-efficient (gm/m ²): 7.34* 10 ⁻⁸ Sd: 624 m
Water vapor transmission at 120μ (ISO 7783:2018) Grade: High – V1 (EN 1062-1)	Matt: Vapor diffusion co-efficient (g/m ² /24 hours): 1398 Sd value: 0.01 m	



		Silk: Vapor diffusion co-efficient (g/m ² /24 hours): 234 Sd value: 0.09 m
	Reduction in water absorption (ASTM C642-13)	Matt: 96.8% Silk: 98.6%
	Chloride Ion Diffusion (VINCI Method)	0 cm ² /s (applicable for Matt and Silk)
	Weathering Resistance (ASTM G154-16)	Good
	Drying time at 25 C & relative humidity 50%	<ul style="list-style-type: none"> • Touch dry: 30 min. • Recoat: 2 -4 hours. • Hard dry: 24 hours.
	Recommended dry film thickness(DFT)	40 – 50 um per coat

Instructions for use:

1- Surface preparation:

- Surface must be clean, free from oil, grease, dirt, chalk, loose paint & any other foreign materials.
- Old painted surfaces should be cleaned first from all loose paint and other contaminants that can affect adhesion.

2- Recommended application system:

- Use **Weathercoat** primer (for chalky or fresh surface) or **Smartcare Dampsheath** Sealer (if waterproofing is required) to increase spreading rate & adhesion as a primer coat prior to application of putty.



- Use **Unoshield / Acryputty** for smoothening & leveling the surface.
- Apply **Weathercoat** primer over putty surface to absorb the surface irregularity
- Mix **TUFF matt/silk** thoroughly to uniform consistency before use.
- First coat to be diluted with 10-15% water.
- Second coat to be diluted with 5% - 10% water.
- Wait 4 hours between each coat for complete drying.

Remarks: - Alternative systems may be specified, depending on area of use.

- Please refer to technical office for application advice.

Application tools: Roller – Brush – Spray gun.

Theoretical coverage: 7.5 – 11.25 m² / Ltr. at 40 – 50 microns DFT.

Practical coverage varies depending on surface porosity, application method, DFT & losses.

Packaging: Refer to company price list or contact the local representative.

Storage & shelf life: 24 months in original tightly closed containers away from direct sunlight & excessive heat.

Our Recommendations are based on extensive research as well as practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the quality of the product itself. We reserve the right to change the given data without notice. Please note that this data sheet supersedes any previous prints. For any additional information, please consult our technical office. February 2022.

