



MAGNALUX™ 41V2

VINYL ESTER GLASS FLAKE

Revised 04/2025 Issue 7

PRODUCT DESCRIPTION

A two-component, sprayable high performance novolac glass flake vinyl ester tank lining.

RECOMMENDED USE

Immersion environments where superior resistance to chemical attack is required. This product is suitable for many chemical environments within the full pH range, it has excellent resistance to de-mineralised water and good resistance to many solvents. It is also used in aggressive atmospheric or spillage conditions (bund areas).

PRODUCT TECHNICAL DATA

Volume Solids:	80 ± 2 % (lining is 100% reactive however practical coverage rate is based on 80 ± 2% volume solids)
VOC:	<50 g/l (UK regulations PG6/23)
Colours:	Off White or Light Grey Finish: semi-gloss
Flash Point:	28° C
Cleanser/Thinner:	Cleanser No.13 Do not thin Magnalux™ components
Pack Size:	10 and 20 litre units
Mixing Ratio:	98 : 2 base to hardener/catalyst Retarder must be added when application temperature exceeds 25°C. See Application guideline sheet for details.
Density:	Magnalux™ base: 1.19 kg/l Magnalux™ hardener: 1.07 kg/l
Shelf Life:	Base and hardener/catalyst 6 months, stored at temperatures below 20°C, away from heat sources and out of direct sunlight. Frequent temperature cycling will shorten storage life.

Recommended Application Methods:

Airless Spray
Brush application is not recommended

Typical Thickness:

Recommended Spreading Rate Per Coat

	Airless Spray	
	500 µm	1000 µm
Dry	500 µm	1000 µm
Wet	625 µm	1250µm
Theoretical Consumption*	0.744 kg/m² 0.625 l/m²	1.488 kg/m² 1.250 l/m²
Theoretical Coverage*	1.34 m²/kg 1.60 m²/l	0.67 m²/kg 0.80 m²/l

*This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment.

Film thickness will vary depending on actual use and specification.

There is often a difference between the measured wet film thickness (WFT) and the true applied wet film thickness – this is due in part to inaccuracy in WFT measurement and flow and leveling characteristics of UHS and SF linings.

Pot Life:

+ 10°C	+ 23°C	+ 32°C
90 min	50 min	30 min

AVERAGE DRYING TIMES

For 500µm Dry Film Thickness

	+ 10°C	+ 23°C	+ 32°C
To recoat (min)	2 hours	1.5 hours	50 min
To recoat (max)	50 hours	48 hours	48 hours
To handle	8 hours	6 hours	4 hours
Cure	50 hours	24 hours	16 hours

These dry times have been obtained using the recommended amount of retarder for each temperature.

See notes on overcoating overleaf.

These figures are given as a guide only. Factors such as air movement and humidity must also be considered.

APPROVALS & ENDORSEMENTS

Approved to Norsok Rev 6 System 7A/7B

SURFACE PREPARATION

Blast clean to Sa 2½ ISO 8501-1. Surface profile in the range 75-125 microns.

Ensure surfaces to be coated are clean, dry and free from all surface contamination.

MIXING

Fill base in a container and add hardener/catalyst at the specified mixing ratio. Stir thoroughly until a homogeneous compound is obtained. We recommend to fill the mixed material into a clean container and mix again shortly as described above to avoid incorrect mixing.



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APPLICATION CONDITIONS

In conditions of high relative humidity, e.g. 80-85% good ventilation conditions are essential. Substrate temperature shall be at least 3°C above the dew point and always above 0°C.

At application temperatures below 10°C, drying and curing times will be significantly extended, and spraying characteristics may be impaired. If application and curing temperatures fall below 5°C, full cure may not be obtained - post curing may be required for certain aggressive environments - see additional notes.

It is not advisable to apply polyester coatings when the air or substrate temperature exceeds 45°C, or the substrate temperature exceeds 55°C. These conditions can introduce paint film formation defects such as dry spray, pinholing, bubbling etc. For application outside these temperature limits it is recommended that advice is sought from Sherwin-Williams.

Overcoating:

It is important to observe maximum overcoating times and note these will vary substantially with climatic conditions. Minimum, as soon as gel has occurred and whilst still tacky. Maximum at 20°C is 48 hours. Strong ultra-violet/sunlight will substantially reduce overcoating time. Once maximum overcoating time has been reached, adhesion values attained by any subsequent coat will reduce dramatically. Should this occur overcoating should be treated as a repair, with the coating flash blasted to provide a physical key. Styrene cannot be used to reactivate the surface of this product and may impair adhesion. Take care to avoid contamination before application of subsequent coats. Ensure ventilation during cure.

APPLICATION EQUIPMENT

Airless Spray - Graco King 45:1 or similar - all filters removed - Min 3/8" hose diameter

Tip Size: 0.7 - 1.2 mm (0,028 - 0,048 inch)

Fan Angle: 45° - 60°

Operating Pressure: 190-220 bar

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent with satisfactory atomisation. As conditions will vary from job to job, it is the applicators' responsibility to ensure that the equipment in use has been set up to give the best results. If in doubt Sherwin-Williams should be consulted.

Brush application is not recommended.

RECOMMENDED SYSTEMS

Between 800 and 1500 microns (in 1 or 2-layers) dependent upon duty and environment and service conditions.

Optional primers are available - consult Sherwin-Williams

ADDITIONAL NOTES

Drying times, curing times and pot life should be considered as a guide only.

For optimum immersion service normal full cure must be achieved, e.g. 72 hours at 25°C (post curing at 80-100°C will shorten the cure time to 3 hours and may be recommended for some aggressive environments).

For immersion spark test at 5 kV per 1000 microns dft and repair defects by overcoating with the specified dft of Magnalux 41V2.

The reaction between the base component and catalyst is highly exothermic. Deviation from the recommended mixing ratio should not be undertaken without first consulting Sherwin-Williams.

The catalyst must be stored separately from the base, and from any other paint or chemical products, in accordance with the product safety data sheet.

The quoted pot lives are typical figures for a full 20 litre unit at 2% catalyst level. Should any thickening or lumps appear in the mixed product, this should be discarded and the equipment flushed through and cleaned immediately. Reduction in catalyst level and/or volume of mixed product will extend the pot life. Flushing of spray equipment is essential before any break in work, and is recommended at regular intervals throughout the application procedure. Only mix units of Magnalux 41V2 as they are required for immediate use.

Magnalux products should not be thinned with cleanser thinners or any other solvent. Thinning will severely impair the curing mechanism and subsequent performance. Thinning with normal paint solvent can lead to exothermic reaction and possible fire or explosion hazard.

Magnalux products must not be applied over any existing painted surface, or any substrate which contains copper or zinc compounds. This includes copper or zinc based paints, or metal sprayed surfaces.

Numerical values quoted for physical data may vary slightly from batch to batch.



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HEALTH & SAFETY

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

WARRANTY

Whilst all statements made about our products (whether in this data sheet or otherwise) are correct and accurate to the best of our knowledge, we have no control over the quality or the condition of the substrate, the application conditions or the many other factors affecting your use and application of our product.

The appropriateness of the product under the actual conditions of application or intended use must be determined exclusively by you. The content of this document, and of any oral or written statements already made or to be made in relation to the subject matter of this document, including any suggestions as to appropriate products and any proposed application methods, technical details and other product information represent only test results or experience obtained under controlled or defined circumstances, and is therefore provided for general information purposes only.

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