



Protective & Marine Coatings

MAGNALUX™ 41V2 VINYL ESTER GLASS FLAKE

Revised 05/2023 Issue 6

PRODUCT INFORMATION

PRODUCT DESCRIPTION

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

ENDORSEMENT

Approved to Norsok Rev 6 System 7A/7B

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).

RECOMMENDED APPLICATION METHODS

Airless Spray

Brush (for small areas and touch up only).

Recommended Cleanser: No.13
PRODUCT MUST NOT BE THINNED

PRODUCT CHARACTERISTICS

Finish: Semi-gloss
Flash Point: 28°C
Colour: Off White or Light Grey.
Pot Life: 50 minutes at 20°C

Theoretical Spreading Rate: 2.0m²/litre at 500 microns.

Solids by Volume:

*lining is 100% reactive however practical coverage rate is based on 80±2% volume solids

AVERAGE DRYING TIMES

Drying Schedule at 500µm

	10°C	23°C	32°C
Recoat (min)	2h	1.5h	50min
Recoat (Max)	50h	48h	48h
Handle	8h	6h	4h
Cure	50h	24h	16h
Pot-life	90m	50h	30m

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.

RECOMMENDED SYSTEMS

Optional primers are available - consult Sherwin-Williams

PACKAGE

Pack Size: 10 and 20 litre composites.

Mixing Ratio:

98:2 base to hardener.

Retarder must be added when application temperature exceeds 25°C. See Application guideline sheet for details.

Weight: Magnalux base: 1.19 kg/l . Hardener: 1.07 kg/l.

Shelf Life:

Base and catalyst (Hardener) 6 months, stored at temperatures below 20°C, away from heat sources and out of direct sunlight.

Frequent temperature cycling will shorten storage life.

VOC

<50 gms/litre determined practically in accordance with UK Regulations PG6/23

PRACTICAL APPLICATION RATES - MICRONS PER COAT

	Airless Spray
Wet mils	(microns) 25.0 (625) 50.0 (1250)
Dry mils	(microns) 20.0 (500) 40.0 (1000)

Practical Spreading rate - 1.6m²/litre

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

RECOMMENDED THICKNESS

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



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SURFACE PREPARATION

Blast clean to Sa2½ ISO 8501-1:2007. Surface profile in the range 75-125 microns.

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

APPLICATION EQUIPMENT

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

Nozzle Size : 0.7 - 1.2mm (28-48 thou)

Fan Angle : 45° - 60°

Operating Pressure : 190-220kg/cm² (2700-3150 psi)

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.

APPLICATION CONDITIONS AND OVERCOATING

In conditions of high relative humidity, ie 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.

WARRANTY

Any person or company using the product without first making further enquiries as to the suitability of the product for the intended purpose does so at their own risk, and Sherwin-Williams can accept no liability for the performance of the product, or for any loss or damage arising out of such use.

The information detailed in this Data Sheet is liable to modification from time to time in the light of experience and of normal product development, and before using, customers are advised to check with Sherwin-Williams, quoting the reference number, to ensure that they possess the latest issue.

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, ie 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 5kv per 1.0mm 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 @ 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.

HEALTH AND SAFETY

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