



# Protective & Marine Coatings

# MAGNALUX™ 41V VINYL ESTER GLASS FLAKE

FORMERLY KNOWN AS DURAGLASS 41V

Revised 01/2017 Issue 21

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

A vinyl ester glass flake.

### RECOMMENDED USE

Superior grade vessel lining offering exceptional protection against a wide range of aggressive chemicals, abrasion and elevated temperatures.

### RECOMMENDED APPLICATION METHODS

Airless Spray  
Brush

**Recommended Cleanser/Thinner:** No 13  
MUST NOT BE THINNED.

### PRODUCT CHARACTERISTICS

**Finish:** Semi-gloss  
**Flash Point:** Base : 32°C Additive : Above 55°C  
**Colour:** Off White  
**Pot Life:** 35 minutes @ 15°C 25 minutes @ 23°C  
– see additional note overleaf

**Solids by Volume:**  
Theoretical 98% at time of mixing. Practical typically 85% ± 5%.  
All vinyl/polyester resin systems are subject to monomer loss and material shrinkage during application and curing.

**Solids by Weight:** 98 ± 2%

**VOC**  
150 gms/litre determined practically in accordance with UK Regulations PG6/23  
1.19 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive  
1gms/kilo content by weight from formulation, to satisfy EC Solvent Emission Directive

### RECOMMENDED THICKNESS

| Dry film thickness | Wet film thickness | Theoretical coverage       |
|--------------------|--------------------|----------------------------|
| 500 microns        | 588 microns        | 1.18 m <sup>2</sup> /kilo* |

\* This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and application equipment. (Thickness/spread based on practical measurement)

Specification thickness will vary normally in the range 1mm-2mm depending on corrosion protection required. Minimum 2 coats required. Contact Sherwin-Williams for details.

### PRACTICAL APPLICATION RATES - MICRONS PER COAT

|     | Airless Spray | Brush |
|-----|---------------|-------|
| Dry | 500*          | 300   |
| Wet | 588           | 353   |

\* Maximum sag tolerance typically 1020µm wet (1000µm dry) by airless spray

### AVERAGE DRYING TIMES

|                   | @ 15°C  | @ 23°C   |
|-------------------|---------|----------|
| <b>To touch:</b>  | 3 hours | 2½ hours |
| <b>To recoat:</b> | 3 hours | 2½ hours |
| <b>To handle:</b> | 6 hours | 4½ hours |

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

### RECOMMENDED SYSTEMS

Indefinitely overcoatable with itself or other Magnalux products.

### PACKAGE

A two component material supplied in separate containers to be mixed prior to use

**Pack Size:** 25kg and 6kg units when mixed

**Mixing Ratio:**  
100 parts base to 2 parts catalyst by weight  
NB Catalyst supplied in 100ml polythene bottles.  
2% addition equates to 1 x 100ml bottle per 6kg unit of base OR 5 x 100ml bottles of catalyst per 25kg unit of base.

**Weight:** 1.4 kg/litre

**Shelf Life:** 6 months from date of manufacture or 'Use By' date where specified. Storage must be at temperatures between 0°C – 25°C.



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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 : 0.58 - 1.01mm (23-40 thou)

Fan Angle : 50°

Operating Pressure : 190-220kg/cm<sup>2</sup> (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

The material is suitable for brush application, as a stripe coat or for touch up of small areas. Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.

### 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.

### 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 41V.

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 25kg 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 41V 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 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.