



# MAGNALUX™ 42SF

## STYRENE FREE BISPHENOL POLYESTER

Revised 04/2025 Issue 3

### PRODUCT DESCRIPTION

A glass flake styrene free bisphenol polyester.

### RECOMMENDED USE

Applications where styrene is not desirable or prohibited.

**Immersion** - Marine including splash zones, hydrocarbon, aqueous, corrosive chemical environments. Maximum immersion temperature 60°C.

**Non-Immersion** - Aggressive atmospheric conditions, corrosive gas. Superstructures, heli-decks, structural steel etc.

### PRODUCT TECHNICAL DATA

**Volume Solids:** Theoretical 98% at time of mixing. Practical typically 90% ± 5%.

All vinyl / polyester resin systems are subject to monomer loss and material shrinkage during application and curing.

**VOC:** <50 g/l (UK regulations PG6/23)

**Colours:** Off White or Light Grey  
Finish: semi-gloss  
Other colours are available on request.

**Flash Point:** 56° 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 15°C.  
See Application guideline sheet for details.

**Density:** Magnalux™ base: 1.19 kg/l  
Magnalux™ hardener: 1.07 kg/l

**Shelf Life:** Base 12 months 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

Dry	500 µm
Wet	555 µm
Theoretical Consumption*	0.661 kg/m <sup>2</sup> 0.556 l/m <sup>2</sup>
Theoretical Coverage*	1.51 m <sup>2</sup> /kg 1.80 m <sup>2</sup> /l

Maximum sag tolerance typically 1110 µm wet (1000 µm dry) by airless spray

#### Pot Life:

+ 20°C

50 min

### AVERAGE DRYING TIMES

	+ 20°C
To touch	6 hours
Full Cure	3 to 4 Days

*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 72 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

500 - 750 microns for atmospheric service.

850 - 1250 microns for aqueous and marine immersion.

1250 - 2000 microns for chemical service.

Primer: For temperatures up to 85°C use Magnalux 42PP, for temperatures above 85°C use Magnalux 41VP.

Overcoatable with itself or Magnalux 43VC

Consult Sherwin-Williams technical support for detailed specifications.

### 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 42SF.

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 42SF 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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