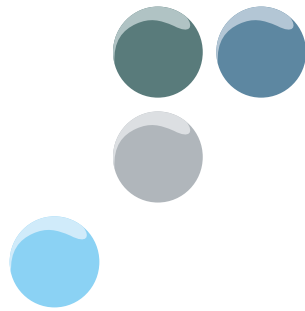





## Flat glass Enamels



### Product information

#### **AF3000 Series**

heavy metal and lithium-free glass  
for toughening and heat strengthening

	Various application methods
	Fully intermixable
	Glossy surface appearance



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 Colour range

Part Number	Description
AF3000	White
AF3250	Citrus yellow
AF3202	Honey yellow
AF3300	Iron red
AF3400	Green
AF3401	Turquoise
AF3402	Chrome green
AF3500	Blue
AF3600	Black
AF3700	Autumn brown
AF3730	Rust brown
AF3740	Chocolate brown
AF3905	Etch

The core range AF3000 Series consists of an intermixable colour palette that can be blended to make an infinite variety of customized colour shades.

The colours of the AF3000 Series can be supplied as:

- Powder
- Oil based screen print paste
- Water friendly screen print paste
- Water friendly roller coat paste

## Application

Application Method	Screen Printing		Roller Coating	Spraying*
Medium type	Oil based IR-medium	WF-IR-medium	WF-IR-medium	Water based medium
Recommended medium	63 - 485	654 - 63	654 - 63	747 - 65
Recommended thinner	RM.441	RM.444	RM.444	Water
Powder/medium ratio	3,5 : 1	3,5 : 1	3,5 : 1	70 parts powder 7 parts medium 30 parts water
Viscosity	10 - 20 Pa.s	10 - 20 Pa.s	10 - 20 Pa.s	15 - 20 sec
Printing temperature	5 - 25°C	5 - 25°C	5 - 25°C	5 - 25°C
Humidity	30 - 60%	30 - 60%	30 - 60%	n/a
Screen	61 - 120	61 - 120	n/a	n/a
Wet film thickness	30 - 40µm	30 - 40µm	80 - 120µm	100 - 150 g/m <sup>2</sup>
Drying conditions	100 - 150°C	100 - 150°C	100 - 150°C	100 - 150°C
Storage	5 - 25°C	5 - 25°C	5 - 25°C	5 - 25°C
Shelf life	1 year	1 year	1 year	6 months

\*Spraying - the glass enamel slurry should be sieved through a 220<sup>µ</sup> mesh before application.

## Firing

Type of Substrate	Firing Range °C	Firing Range °F
Flat glass	620 - 720	1148 - 1328

## Colour information

It is recommended that before decoration the glass should be at ambient temperature and completely clean and dry.

The AF3000 series may not be compatible with low-E and similar glass coatings. We recommend that the products are thoroughly tested when used in contact with other glass coatings.

## Chemical durability

When applied and fired correctly the range will meet the chemical resistance levels as described in this sheet. This level of resistance, however, does not imply nor guarantee any specific levels of resistance to atmospheric exposure nor product life span.

We do not recommend the use of glass enamels in environments where they will be directly subjected to exposure to water and weather for extended periods.

### Acid resistance

3.7% HCl, 15 minutes at room temperature grade: 2 to 3.

Assessment according to ASTM C 724-91.

10% Citric acid, 15 minutes at room temperature grade: 1 to 2.

Assessment according to ASTM C 724-91.

4% acetic acid, 24 hours at room temperature grade: 2 to 3.

Assessment according to ASTM C 724-91.

### Alkaline resistance

10% NaOH 2 hours at 95°C result:

<1.0mg/cm<sup>2</sup> assessment according ASTM C1203-91

## Storage and handling

It is recommended that the glass enamels are stored in tightly sealed containers away from direct sunlight at an even temperature in the range of 5-25°C (41-77°F).

Under these conditions the enamel can be stored for reasonable periods, although storage for longer than 12 months is not recommended.

Water based spray medium should never be stored at temperatures < 0°C.

## Health and safety

Good industrial hygiene and work practices should be adhered to when handling the products mentioned in this document. For detailed health and safety requirements, please consult the appropriate Material Safety Data Sheets.



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