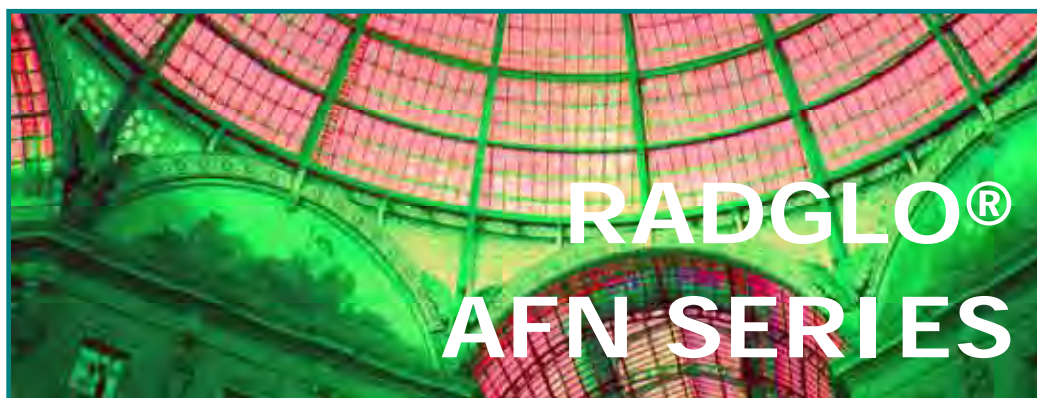


Supersedes:



## FORMALDEHYDE FREE WATERBASES

### Technical Information

#### Applications:

*Water based flexo inks*

*Water based gravure inks*

*Textile printing inks*

*Waterborne Coatings*

*Paper coatings*

#### Product description

RADGLO® AFN dispersions are based on a unique formaldehyde free pigment technology. These products offer a bright, submicron, high strength fluorescent pigment particle.

RADGLO® AFN dispersions are suspended in water and suitable for use in coatings and waterbased inks.

#### Chemical composition

RADGLO® AFN dispersions are emulsions of a modified polystyrene resin with dye-stuffs. They contain approximately 45% fluorescent pigment dispersed in water.

RADGLO® AFN dispersions contain no solvents.

RADGLO® fluorescent pigments as such are not classified in the Colour Index (CI), but certain colour components are



#### Standard colours

AFN-09: UV Blue

AFN-20: Chartreuse

AFN-23: Orange

AFN-24: Orange Red

AFN-25: Red

AFN-27: Pink

AFN-28: Magenta

AFN-29: Blue

#### Physical properties

- Product form: aqueous fluorescent pigment dispersion
- Particle size: 0.25-0.45 µm
- Spec.Gravity: 1.0-1.1 g/ml
- Percentage solids: 46-50%
- pH: 7.5-8.9
- Specific surface: 15-25 m<sup>2</sup>/g
- Viscosity: 50-300 cps (Brookfield LVF: 25°C, Spindel 1, 30RPM)

### Regulatory and Ecotox information

All components of RADGLO® AFN series are registered in EINECS. All components as well as the polymeric resin of the AFN series are registered in TSCA. RADGLO® AFN series is in conformity with the purity requirements of EN71 part 3.

RADGLO® AFN series is basically free from heavy metals. For detailed information, please consult the individual MSDS.

## Lightfastness

### Lightfastness

Fluorescent pigments are more fugitive than conventional pigments. They are stable to indoor light or outdoor conditions other than direct sunlight. By exposure to outdoor sunlight the colour will change, whereby the degree of fading is depending on following factors:

- Colour of the pigment
- Pigment loading and thickness of the endproduct. The higher the pigmentloading and thickness, the better the lightfastness.
- Type of binderpolymer
- Intensity and angle of the incident sunlight.

**The lightfastness may be improved by including UV-absorber(s) in the formulation and/or by making use of clear overcoats containing UV-absorber(s).**

## Applications & Storage

Whereas the average particle size of a regular fluorescent pigment is 3-5 µm, is this only 0.25—0.45µm for the AFN quality!

### Applications

Based on their very fine grind, RADGLO® AFN dispersions are especially suitable for specific water based systems.

#### Typical applications are:

- Water based flexo ink
- Water based gravure ink
- Textile ink
- Waterborne coatings
- Paper coatings.

### Storage

RADGLO® AFN dispersions offer good storage stability. However, it is recommended that the storage period does not exceed six months.

**RADGLO® AFN dispersions are stable but should be protected from freezing.**

## Processing conditions & specific considerations

RADGLO® AFN dispersions are liquid products which offer easy incorporation into aqueous systems with minimal mixing.

These products are not compatible with non aqueous formulations. RADGLO® AFN dispersions should be stirred up before use to ensure homogeneity.

### Additives

Additives, cosolvents and binder selection can influence the performance of the AFN dispersions. The effects of these raw materials should be tested in the final application formula.

### Viscosity reduction

Formulations based on AFN dispersions are designed to be thinned with water only. Formulations may tolerate small quantities of alcohols but levels should be kept below 5%. Testing should be conducted to determine effects on final application formulas

## *Startpoint formulations*

### *Water based flexo ink*

RADGLO® AFN dispersion	70.0
Acrylic binder	30.0
Thickener, wax, defoamer, surfactants, biocide...	As needed

### *Fluorescent paper coating*

RADGLO® AFN dispersion (adjust pH 7.5–8.0)	25.0
Calciumcarbonate	15.0
Thickener	As needed
Latex binder	23.0
Water	37.0
Defoamer, biocide	As needed

## Available standard colours & package of the AFN series:

COLOUR	AFN
Chartreuse	AFN-20
Orange	AFN-23
Orange Red	AFN-24
Red	AFN-25
Pink	AFN-27
Magenta	AFN-28
Blue	AFN-29
UV Blue	AFN-09

Similar codes in the different series offer a comparable colour but are not 100% identical.  
Colour may depend on the specific formulations of the customer.

Package:	Containing:	
1 jerrycan	1 x 20 kg	= Minimal order
1 metal drum	200 kg	

® = registered trademark

**Disclaimer:** This technical information is just an advice. No warranty of fitness for a particular purpose is made.



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