

# Synolite™ 0564-A-1

## Orthophthalic/NPG resin for Solid Surface with excellent color after cure

Synolite™ 0564-A-1 is a pre-accelerated Orthophthalic/NPG resin which can be easily converted through Solid Surface processes into complex shapes and forms.

Components made from this resin have very low base color and enable creation of customized colors and color effects. The UV stabilizer and enhanced chemical resistance contribute to long part life.

### Benefits

- High versatility for creating personalized colors and color effects
- 3D effects maximized as a result from low color and low pigment requirement
- Flexibility to design unique forms and shapes
- Resistance to thermal shock
- Resistance to UV, staining and chemicals

### Major Applications

Synolite™ 0564-A-1 is recommended for filler/resin castings that require a brilliant color after cure; e.g. onyx and (white) marble imitations with low amounts of pigments and dyes. Due to the good chemical resistance this resin is very suitable for "fully densified" products (filler/resin castings without gelcoat).

Synolite™ 0564-A-1 is a medium reactive unsaturated polyester resin with low polymerization shrinkage and gradual curing speed. Synolite™ 0564-A-1 is stabilized against UV-light and for use in Tropical regions.

### Product Specifications

| Property                             | Value       | Unit     | TM       |
|--------------------------------------|-------------|----------|----------|
| Appearance                           | Clear       |          | TM 2265  |
| Color Lico APHA                      | 0 - 40      | APHA     | TM 2017  |
| Color cured UP Resin D-value         | 0 - 90      | -        | TM 2266D |
| Solids content                       | 64 - 67     | %        | TM 2033  |
| Viscosity 23 °C, 2 s <sup>-1</sup>   | 0 - 90      | mPa.s    | TM 2313  |
| Viscosity 23 °C, 100 s <sup>-1</sup> | 1000 - 1300 | mPa.s    | TM 2013  |
| Acid value                           | 25 - 30     | mg KOH/g | TM 2401  |
| Gel time 25 until 35 °C              | 12 - 14     | min      | TM 2625  |
| Peak time                            | 25 - 33     | min      | TM 2625  |
| Peak temperature                     | 105 - 145   | °C       | TM 2625  |

Viscosity measurement TM 2013: Z 2 / 100 / 23°C. Color, Cured UP resin TM 2266D: Cured with 0.5 g Medium reactive MEKP in 100 g resin. Curing conditions at 25°C, TM 2625: 1.0 g Medium reactive MEKP in 100 g resin.

## Liquid

| Property                             | Value | Unit              | TM      |
|--------------------------------------|-------|-------------------|---------|
| Density 20 °C                        | 1140  | kg/m <sup>3</sup> | TM 2160 |
| Flash point                          | 33    | °C                | TM 2800 |
| Stability (no initiator, dark, 25°C) | 6     | month             |         |

## Solid Unfilled

| Property                | Value | Unit              | TM        |
|-------------------------|-------|-------------------|-----------|
| Density 23 °C           | 1225  | kg/m <sup>3</sup> | DIN 53479 |
| Tensile strength        | 70    | MPa               | ISO 527-2 |
| Tensile modulus         | 4     | GPa               | ISO 527-2 |
| Elongation at break     | 2.1   | %                 | ISO 527-2 |
| Flexural strength       | 150   | MPa               | ISO 178   |
| Flexural E-Modulus      | 3.9   | GPa               | ISO 178   |
| HDT                     | 75    | °C                | ASTM D648 |
| Metric volume shrinkage | 6.9   | %                 |           |
| Impact strength         | 10    | kJ/m <sup>2</sup> | ISO 179   |

Cured with 1% Medium reactive MEKP. Post cured 24 h at RT followed by 24 h at 60°C plus 24 h at 80°C.

## Application Guidelines

The resin should be conditioned at 15°C minimum before use to obtain a sufficient cure when MEKP is used as a curing system.

## Storage Guidelines

The resin should be stored indoors in a dry place at temperature tight and undamaged packaging.

The properties of the resin may change slightly during storage.

## Material Safety

A Safety Data Sheet (SDS) of this product is available on request.

## Test Methods

Test methods (TM) referred to in the table(s) are available on request.

## ISO 9001:2015 Certified

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### Contact us for more information

We will help you to choose the right resin solution.

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