

## NOROX®FC-100

Acetyl acetone peroxide; Tert. Butyl peroxybenzoate  
CAS#13784-51-5; 614.45-9  
Liquid mixture

### Description

NOROX®FC-100 is a clear to pale yellow liquid of a peroxide formulation based on acetylacetone peroxide and a peroxyester diluted in phlegmatizers. NOROX®FC-100 is a very effective polymerization initiator for the ambient and the elevated temperature cure of unsaturated polyester resins.

### Technical Data

Appearance	Liquid
Active oxygen	4.5 ± 0.1%
Flash point (Seta closed cup):	> 65 °C (> 148 °F)
Density at 20 °C	1.06 – 1.10 g/cm <sup>3</sup>
Soluble in :	Soluble in various organic solvents like ethers, ketones and glycols
Slightly soluble in:	Water
Critical temperature (SADT)	55 °C (140 °F)
Recommended storage temperature	0-25 °C
Maintenance of activity as from date of delivery	6 months

### Application

NOROX®FC-100, in combination with cobalt accelerated resins, has shown to be an exceptional good cure system for unsaturated polyesters both at ambient temperatures and elevated temperatures. Levels of cobalt (naphthenate or octoate in 1% solutions) should be in the range of 0.1 to 1,0%. The advantages of using NOROX®FC-100 instead of conventional initiators are that you get a more complete cure, reduced residual styrene and stronger parts. Compared to a standard AAP, you get a similar gel time, somewhat higher peak exotherm, but the final cure is better. Typical applications for NOROX®FC-100 are manufacturing processes like RTM, filament winding, centrifugal casting or continuous laminating.

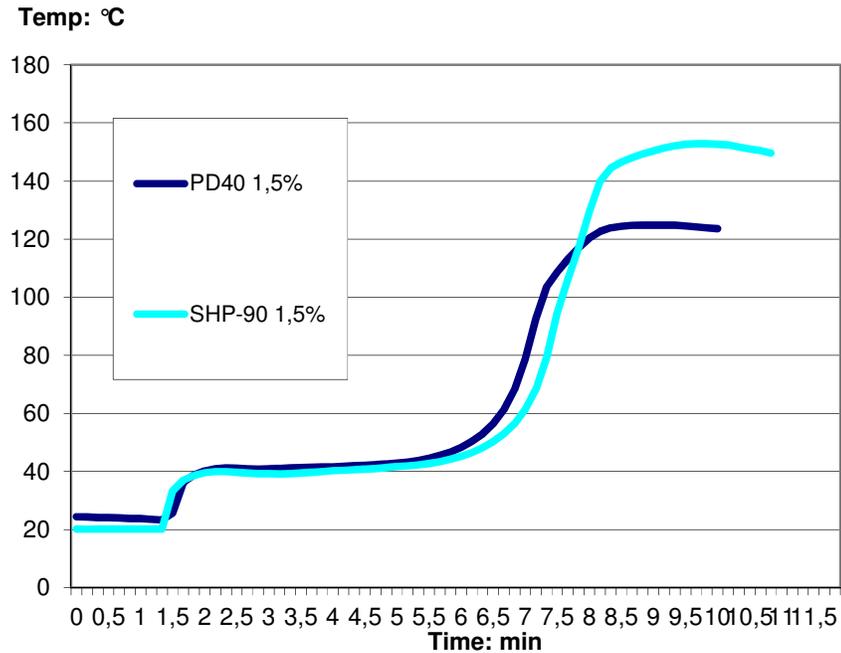
### Measurements

A reactivity test with an unsaturated polyester resin gave the following results:

Resin: Orthophthalic polyester      Temperature: 21 °C  
Initiator %:1.0      Accelerator % 1% (1% cobalt)

Initiator	Gel time min	Time to peak min	Peak exotherm temp °C
<b>NOROX®FC-100</b>	<b>8</b>	<b>17</b>	<b>155</b>
NOROX®PD-40	8	17	147

**Analysis of reactivity of NOROX®PD-40 vs NOROX®FC-100 at 50 °C.  
Resin: Fire retardant RTM polyester. Method: DIN 16945.**



## Packaging

The standard package sizes of NOROX®FC-100 are 25 kg (40 lb) polyethylene bottles.

## Disclaimer

This information and all further technical advice are reflecting our present knowledge and experience based on internal tests with local raw materials with the purpose to inform about our products and applications. The information should not be construed as guaranteeing specific properties of products described or their suitability for a particular application, nor as providing complete instructions for use. The information implies no guarantee for product and shelf life properties, nor any liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. We reserve the right to make any changes according to technological progress or further developments.

Application and usage of our products based on our technical advice is out of our control and sole responsibility of the user. The user is not released from the obligation to conduct careful inspection and testing of incoming goods in order to verify the suitability for the intended application.

United Initiators  
**EU**  
T: +49 89 74422 237  
F: +49 89 74422 6237  
cs-initiators.eu@united-in.com

United Initiators  
**Nafta**  
T: +1 800 231 2702  
F: +1 440 323 0898  
cs-initiators.nafta@united-in.com

United Initiators  
**China**  
T: +86 20 6131 1370  
F: +86 139 2503 8952  
cs-initiators.cn@united-in.com

United Initiators  
**Australia**  
T: +61 2 9316 0046  
F: +61 2 9316 0034  
cs-initiators.au@united-in.com

[www.united-initiators.com](http://www.united-initiators.com)