

## NOROX® MCP

### DESCRIPTION

NOROX® MCP is a solution of Methyl ethyl ketone peroxides and Cumyl hydroperoxide in phlegmatizer. NOROX® MCP is a liquid polymerization initiator for the room temperature cure of unsaturated polyester and vinyl ester resins with the following advantages/properties:

- Very low peak exotherm temperature
- Longer working time (gel time) than standard MEKP
- Excellent final cure – both in thin and thick laminates
- Low impurity levels (water, MEK, salts)
- Less shrinkage and stress problems

### TYPICAL PROPERTIES

Active oxygen content:	8.7 – 9.0%
Appearance:	Pale yellow liquid
Specific Gravity at 20°C:	1.08 – 1.11 g/cm <sup>3</sup>
Flash point (Seta C.C.):	> 65°C (149°F)
SADT:	60°C (140°F)
Soluble in:	Oxygenated organic solvents
Slightly soluble in:	Water
Storage temperature:	Max 25°C (77°F)

### APPLICATION

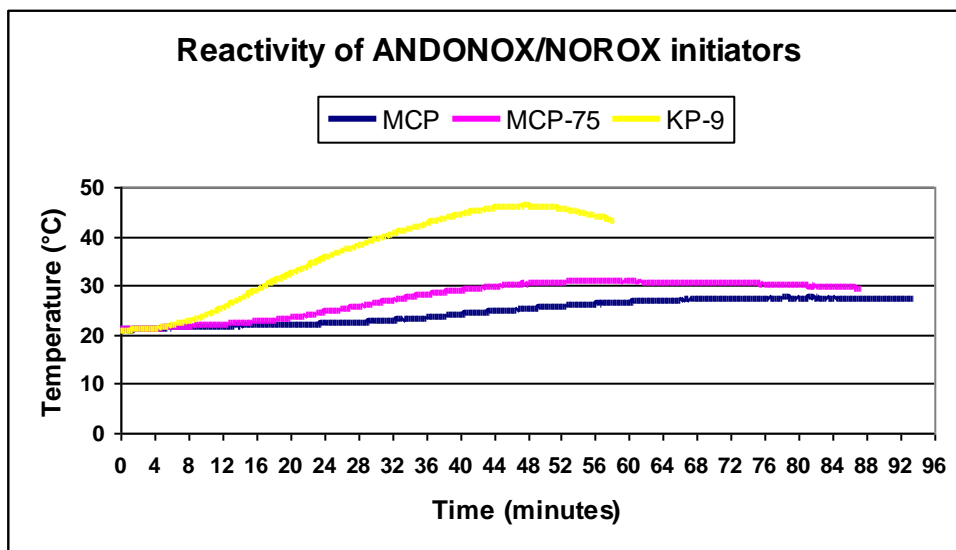
NOROX® MCP has a flat and low exotherm curve which ends up in a good 24 hour cure. This curing behavior reduces stress, cracking and shrinkage problems in laminates & castings. Less shrinkage also means less fibre print through of gelcoated surfaces. The gel time and cure time is slower compared to standard MEKP products, but final cured resin hardness is often better than for resins initiated with standard MEKP. NOROX® MCP can be used when you want to build up thick laminates in one step, or if the laminate has big variations in thickness, or when you have high resin loadings. Typical applications are vacuum bag moulding of big units, filament winding of pipes and tanks with thicker laminates or polyester concrete systems with high resin-to-filler ratio.

### CURE CHARACTERISTICS

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® MCP</b>	<b>37</b>	<b>79</b>	<b>28</b>
NOROX® MCP-75	22	69	31
ANDONOX® KP-9	11	48	47

## NOROX<sup>®</sup> MCP



A reactivity test with an epoxy vinyl ester gave the following results:

Resin: Pre-accelerated epoxy vinyl ester Temperature: 25°C  
Initiator %: 1.5

Initiator	Gel time min	Time to Peak min	Peak Exotherm temp °C	Barcol Hardness (935) 24h	Gassing ml
ANDONOX <sup>®</sup> KP-9	24	62	113	60	7.0
NOROX <sup>®</sup> MEKP-925H	18	39	128	53	0.9
<b>NOROX<sup>®</sup> MCP</b>	<b>43</b>	<b>&gt;233</b>	<b>28</b>	<b>60</b>	<b>0.5</b>

### PACKAGING, SHIPPING & AVAILABILITY

- The standard package sizes of NOROX<sup>®</sup> MCP are 5 kg (8 lb) and 25 kg (40 lb) polyethylene bottles.
- NOROX<sup>®</sup> MCP is available pre-dyed in 25 kg (40 lb) bottles. Please see Syrgis Performance Initiators TDS for Peroxide Dye Concentrates.
- Classification – Please refer to the specific NOROX<sup>®</sup> MCP Safety Data Sheet (SDS) under section 14 & 15, shipping & regulatory information. **NOTE:** MSDS's and SDS's for all Syrgis Performance Initiators products may be requested by contacting the company.
- NOROX<sup>®</sup> MCP is available through a global network. Call Syrgis Performance Initiators for the name of the distributor in your area.

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