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**MEKP – AAP - Catalyst  
(Polyester Resin, High reactivity, Fast cure)**

**1. DESCRIPTION**

- ❖ MEKP – AAP is a clear solution of acetyl acetone peroxide (AAP), or 2, 4 – Pentanedione peroxide in a phlegmatiser.
- ❖ AAP is a very effective polymerization initiator for room temperature curing of unsaturated polyester resins and, gives exceptionally fast cures without significantly affecting gel times in most resin systems.
- ❖ AAP has an added advantage of being a low fire or explosion hazard.

**TYPICAL PROPERTIES**

|                         |  |
|-------------------------|--|
| Active oxygen content   | 4.1 ±0.1 %                                       |
| Appearance              | Water clear to straw liquid                      |
| Density at 20°C         | 1.07 – 1.10 g/cm <sup>3</sup>                    |
| Viscosity at 20°C       | 35 – 38 mPa.s                                    |
| Flash point (Seta C.C.) | >65°C  |
| SADT                    | 60°C   |
| Insoluble in            | Aromatic, chlorinated and aliphatic hydrocarbons |
| Soluble in              | Water, ethers, ketones, alcohols, glycols        |
| Storage temperature     | Max 25°C and Min – 10°C                          |

## 2. APPLICATION

AAP is a very effective polymerization initiator for room temperature cure of unsaturated polyester resins and gives exceptionally fast cures without significantly affecting gel times in most resin systems. Due to the fast cure of AAP the exothermic development is most often higher than common MEKP-cobalt curing system and therefore not recommended to cure thick laminates in one step. This performance characteristic is especially beneficial in resin transfer moulding (RTM), cast polymers, and other applications requiring fast mould turnaround for production efficiencies.

It is not advisable to use AAP, with gel coats because of risk of yellowing on white gelcoats and due to the polar property of AAP which can cause osmosis effects.

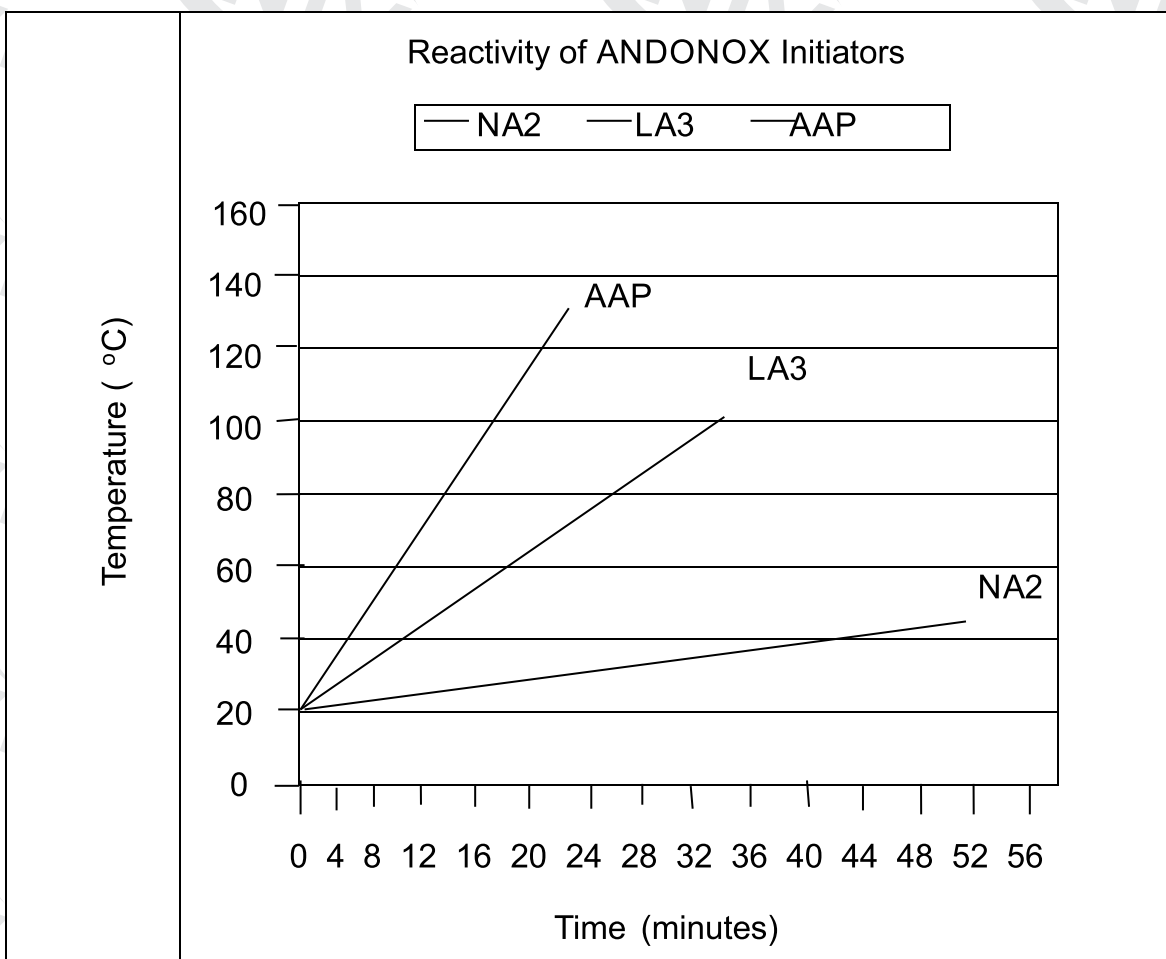
AAP is best suited for singly promoted resins using cobalt promotion alone. Levels of cobalt (naphthenate or octoate in 6% solutions) should be in the range of 0.1 to 0.5%. In some cases, the addition of 0.1% to 0.3% diethyl- or dimethylaniline speeds the curing further and gives extremely high exothermic temperature. The resin inhibitor type and level also has an important effect on the performance of AAP. In general, high inhibitor levels are usually not desirable, and use of some quaternary ammonium salts can cause significant yellowing of the resin. Also, quaternary ammonium compounds can have inhibiting effect on the resin system gel- and cure properties.

## 3. CURE CHARACTERISTICS

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

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

| Initiator | Gel time<br>min | Time to peak<br>min | Peak exotherm<br>temp °C |
|-----------|-----------------|---------------------|--------------------------|
| AAP       | 8               | 17                  | 147                      |
| LA3       | 9               | 34                  | 110                      |
| NA2       | 11              | 48                  | 47                       |



### PACKAGING, SHIPPING & AVAILABILITY

- The standard packaging sizes of MEKP - AAP 25 kg polyethylene bottles.
- MEKP - AAP is available pre-dyed in 25kg bottles.
- Classification – Please refer to the specific AAP Safety Data Sheet (SDS).

#### Disclaimer:

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