TECHNICAL DATA SHEET

Accelerator COB 2 TX *created 02-06-08 . revised :*

Cobalt octoate
CAS#136-52-7
Solution in plasticiser (2% cobalt)

Description:

Violet coloured liquid, consisting of cobalt octoate with a cobalt content of 2% w/w diluted with TXIB. In combination with ketone peroxides, hydroperoxides or peresters these products are used as accelerators for the curing of unsaturated polyester resins.

Technical data:

Appearance.....violet coloured mobile liquid.
Cobalt content.....approx. 2% w/w
Diluent .....2,2,4 trimethyl, 1,3 pentanediol diisobutyrate
Density at 20℃ ....approx. 0,965g/cm3
Flash point (closed bowl pensky martens)..... above 86℃
Miscibility.....miscible with UP resin, styrene, etc., immiscible with water
Storage stability as from date of delivery ..... 6 months

Application:

Accelerators in combination with ketone peroxides for curing at ambient temperature or at elevated temperatures together with peresters or hydroperoxides. Suitable in particular for resin types based on ortho- or isophthalic acid. Usage level: 0.1-2% Accelerator COB 2-TX and 1-5% peroxide in the supply form, possibly 0.1-0.8% Inhibitor TC-510. "Shelf-life" (gel time of resin + accelerator) up to several months depending on tempe-rature and resin type but with considerable loss of activity. "Pot-life" (gel time of resin + accelerator + peroxide) variable from some minutes up to some hours depending on the quantity of ketone peroxide and inhibitor or up to several days depending on peroxide type (e.g. perester). Moderate development of heat, relatively long mould release times i.e. moderate mould release factor except in combination with acetyl acetone peroxide. With special peroxide mixtures a moderate peak exotherm, little internal stress and relatively short mould release times can be achieved, even in thick laminates. Reasonable accelerating effect up to about 100℃ as well as down to about 20℃. A good degree of cure can be achieved particularly with adequate post-curing. The reddish or greenish discolouration of the finished parts remains within bounds even with weatherageing. In particular hand lay-up, spray lay-up, injection moulding, rotational moulding, casting and coating. Versatile and flexible by using various curing agents e.g. all types of ketone peroxides or certain peresters and hydroperoxides.

Specification:

Specification				
Test Parameter	Min.	Max.	Unit	Test method
Cobalt	1,90	2,10	%	ALA/0

(unless otherwise indicated, %-figures are given as % by weight/weight).

TECHNICAL DATA SHEET

Accelerator COB 2 TX

created 02-06-08 . revised :

Influence of peroxide type on cure times "Cold Curing" of 2 mm thick GRP laminates at 23℃								
Formulation (parts by weight)								
Highly reactive OPS-resin type	100	100	100	100	100	100		
Accelerator COB 2-TX	0.25	025	0.25	0.25	0.25	0.25		
CUROX M-300	2							
CUROX M-100		2						
CUROX A-200			2					
CUROX A-140				2				
CHP-HA-M2					2			
BPB-HA-M1						2		
Cure times (minutes) at 23℃								
Gel time (tgel)	6	25	12	20	18	11)		
Mould release time (tE)	45	140	22	110	80	-		
Mould release factor (fE=tE/tgel)	7.5	5.6	1.8	5.5	4.4	-		
Influence of temperature and peroxide type on cure times "Cold curing" of 2 mm thick GF/UP laminates at 23℃								
Formulation (parts by weight)								
Medium reactive VE-resin type	100	100	100	100	100	100	100	100
Accelerator COB 2-TX	1	1	1	1	0,5	0,5	0,5	0,5
CUROX M-100	2	-	-	-	2	-	-	-
CHP-HA-M2	-	2	-	-	-	2	-	-
TBPB-HA-M1	-	-	2	-	-	-	2	-
Cure times (minutes) at 23℃								
Gel time (tgel)	10	25	40	20	15	75	60	26
Mould release time (tE)	70	270	220	100	85	330	200	145
Mould release factor (fE=tE/tgel)	7,0	11	5,5	5,0	5,7	4,4	3,3	5,6

Contact: europeroxydes@a-arnaud.fr Tél +33(3) 8548 5937 Fax +33(3) 8548 5429