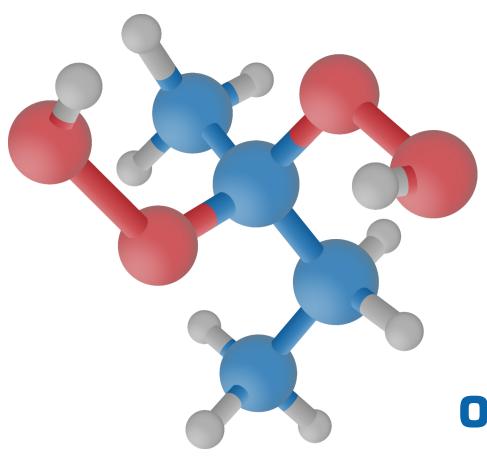


# ORGANIC PEROXIDES



OXYGEN

is not only for breathing

PRODUCT NAME	DESCRIPTION	ACTIVE OXYGEN [%]	H,0, [%]	WATER [%]	CHEMICAL FORMULA								
METHYL ETHYL KETONE PEROXIDES													
METOX-50 METOX-50R*	Peroxide initiator of high reactivity. Used for curing of unsaturated polyester resins and some vinyl ester resins, applied at ambient temperature in the presence of cobalt accelerator. Stabilizer: dimethyl phthalate.	9,3 - 9,8	1,9-2,3	≤3									
METOX-50S METOX-50SR*	Peroxide initiator of very high reactivity. Used for curing of unsaturated polyester resins applied at ambient temperature in the presence of cobalt accelerator. Due to relatively high hydrogen peroxide it is not recommended for curing gelcoats. Stabilizer: dimethyl phthalate.	9,3-9,8	4,3-5,3	≤5	H_O_O_(,,OH								
METOX-50W METOX-50WR*	Peroxide initiator of medium reactivity. Used for curing of unsaturated polyester resins and some vinyl ester resins, applied at ambient temperature in the presence of cobalt accelerator. Compared with Metox-50 it presents slightly extended gel time. It may be applied for curing gelcoats. Stabilizer: dimethyl phthalate.	8,5-8,9	1,5-1,9	≤2,5									
METOX-30 METOX-30R*	Diluted version of Metox-50. Used for curing of unsaturated polyester resins, applied at ambient temperature in the presence of cobalt accelerator. Compared with Metox-50 it presents extended gel time. The product can be applied during summer time to extend the gel time. Stabilizer: dimethyl phthalate.	5,1-5,4	0,6-1,3	≤1,5	H-0-0-0-0-H								
METOX-VLHP90	Peroxide initiator of low reactivity, containing less water and hydrogen peroxide. Used for curing of unsaturated polyester resins, applied at ambient temperature in the presence of cobalt accelerator. Due to its specific composition, the product is especially recommended for curing gelcoats. Stabilizer: dimethyl phthalate.	8,8-9,1	≤1,1	≤1,5									
METOX-BW85	Peroxide initiator of low reactivity, used for curing of unsaturated polyester resins. When used for vinyl ester resins it present high reactivity. Used for curing of resins, applied at ambient temperature in the presence of cobalt accelerator. Due to it specific composition, the product is especially recommended for curing of vinyl ester resins (reduced foaming). It is recommended for curing of gel coats, because of low hydrogen peroxide level. Stabilizer: diisononyl phthalate.	8,4-8,6	≤0,4	≤1,5	НООН								
METOX-30P RED**	Methyl ethyl ketone peroxides in paste form.	5,1-5,4	-	-									
CYCLOHEXANONE PE	ROXIDE												
CETOX-50	Peroxide initiator of low reactivity, used for curing of unsaturated polyester resins, applied at ambient temperature in the presence of cobalt accelerator. In comparison with Metox-50 it presents extended gel and cure time. At the same time lower peak time is observed. Stabilizers: dimethyl phthalate and diacetone alcohol.	4,8-5,1	0,9-1,3	≤5,8									
CETOX-50S	Peroxide initiator of high reactivity, used for curing of unsaturated polyester resins at ambient temperature in the presence of cobalt accelerator. Compared with standard Cetox-50, it presents shorter gel time. Stabilizers: dimethyl phthalate and diacetone alcohol.	4,8-5,2	2,8-3,6	-	ООН								
CETOX-350E	Mixture of Cetox-50 with butyl acetate. Used for curing of spray-up putties at ambient temperature in the presence of cobalt accelerator. Compared with Cetox-30OE it presents higher reactivity and shorter gel time. Stabilizers: dimethyl phthalate and diacetone alcohol.	3,1-3,4	0,4-0,9	≤4	OOH								
CETOX-30OE	Mixture of Cetox-50 with butyl acetate. Used for curing of spray-up putties at ambient temperature in the presence of cobalt accelerator. Compared with Cetox-200E it presents higher reactivity and shorter gel time. Stabilizers: dimethyl phthalate and diacetone alcohol.	2,8-3,0	0,4-0,9	≤4									
CETOX-20OE	Mixture of Cetox-50 with butyl acetate. Used for curing of spray-up putties at ambient temperature in the presence of cobalt accelerator. Stabilizers: dimethyl phthalate and diacetone alcohol.	1,9-2,2	0,2-0,6	≤2,5	НООН								
CETOX-12OB RED*	Mixture of Cetox-50 with butyl acetate. Used for curing of spray-up putties at ambient temperature in the presence of cobalt accelerator. Stabilizers: dimethyl phthalate and diacetone alcohol.	1,1-1,3	≤0,6	≤2									
CETOX-30P YELLOW**	Cyclohexanone peroxide in paste form.	6,3-6,7	-	-									
ACETYLACETONE PER	OXIDE												
PENTOX-40 PENTOX-40R*	Peroxide initiator of high reactivity, used for curing of unsaturated polyester resins at ambient temperature in the presence of cobalt accelerator. For most of the resins it presents similar gel time as Metox-50W. However, it presents much more shorter cure time and higher temperature peak. Stabilizer: diacetone alcohol.	4,0-4,2	1,3-1,9	≤7	HOOH								
PEROXIDE MIXTURES													
METOX-50WP40	Methyl ethyl ketone peroxides and acetylacetone peroxide solution in dimethyl phthalate and diacetone alcohol. Peroxide initiator of medium reactivity, used for curing of unsaturated polyester resins, applied at ambient temperature in the presence of cobalt accelerator. Compared with Metox-50W it presents shorter cure time and similar gel time. It is especially recommended in production which requires quicker product moulding.	7,4-7,7	1,4-1,9	≤4	H <sub>0</sub> .0, H <sub>3</sub> C, CH <sub>3</sub>								
PERMIX-MCHP90 PERMIX-MCHP90R*	Methyl ethyl ketone peroxides and cumene hydroperoxide solution in dimethyl phthalate. Peroxide initiator of low reactivity, used for curing of unsaturated polyester resins, applied at ambient temperature in the presence of cobalt accelerator. Use of this initiator allows to achieve lower temperature peak in case of curing thicker laminates.	8,8-9,2	≤0,8	≤1,5	H_noloningOOH								
PERMIX-MC96	Methyl ethyl ketone peroxides and cyclohexanone peroxide solution in dimethyl phthalate. Peroxide initiator of medium reactivity, used for curing of unsaturated polyester resins, applied at ambient temperature in the presence of cobalt accelerator. Due to its specific composition, the product is especially recommended for curing gelcoats. Its high reactivity allows to achieve shorter gel and cure time of gelcoats, compared with Metox-50W.	9,6-9,8	0,6-1,1	≤1,5	НООН								
PERMIX-MC48OE	Methyl ethyl ketone peroxides and cyclohexanone peroxide solution in dimethyl phthalate and ethyl acetate.	4,8-5,0	0,2-0,6	≤1,5									
BENZOYL PEROXIDE -	PASTE												
BETOX-50PC WHITE / RED	Peroxide initiator used for curing of unsaturated polyester polyester, vinyl ester and acrylic resins. For curing at ambient temperature, it is required to add tertiary amine e.g. DMA as accelerator. Above 80°C it can be used without addition of the accelerator. Especially recommended for curing of polyester putties, resin concretes	3,2-3,4	-	-									
BETOX-BM50R WHITE / RED	and hot moulding. Characterized by high reactivity even at low temperatures. The product is available with red pigment. Products differ in chemical composition and colour.	3,2-3,4	-	-	0 0								

<sup>\*</sup> Coloured version allows to control the flow of initiator during the dosage and the course of polymerization (it discolours during curing).
\*\*The new products.

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PRODUCT NAME	RECOMMENDED STORAGE TEMPERATURE [C°]	SADT [C°]	UN NUMBER	SPRAY LAY-UP AND HAND LAY-UP	RTM (RESIN TRANSFER MOULDING)	COLD PRESS MOULDING	VACUM MOULDING / INFUSION	GELCOATS	POLYESTER PUTTIES	CHEMICAL ANCHORS & MINE BOLTS	FANCY GOODS	POLYMER CONCRETE AND ARTIFICIAL MARBLE	COATINGS AND VARNISHES	FILAMENT WINDING	CENTRIFUGAL LAMINATING	CONTINUOUS	VINYL ESTERS
METHYL ETHYL KETO			5														
METOX-50 METOX-50R*	25	60	3105	•	•	•	•				-	-	•	•	•	•	•
METOX-50S METOX-50SR*	25	60	3105	•	-	•	-										
METOX-50W METOX-50WR*	25	60	3105	•	-	•	-	-				-	•	•	-	•	ı
METOX-30 METOX-30R*	25	60	3107	•	•	•	•					-	•		•	•	•
METOX-VLHP90	25	60	3105	•	-	•	•	•				-	•		•		•
METOX-BW85	25	60	3105	•	-	•						-			-		
METOX-30P RED**	25	60	3108														
CYCLOHEXANONE PE	ROXIDE																
CETOX-50	25	50	3105	•					-		•		•				
CETOX-50S	25	50	3105						•		•						
CETOX-35OE	25	50	3105	•					•		•		•				
CETOX-30OE	25	50	3105	•					•				•				
CETOX-20OE	25	50	3105	•					•		•		•				
CETOX-12OB RED*	25	50	3105														
CETOX-30P YELLOW**	25	50	3106						•								
ACETYLACETONE PE	ROXIDE																
PENTOX-40 PENTOX-40R*	25	60	3105	•	-	•						-			•		
PEROXIDE MIXTURES																	
METOX-50WP40	25	60	3105	-	-	-		-				-	-	-	-	-	
PERMIX-MCHP90 PERMIX-MCHP90R*	25	60	3105	•	•			•				•	•	•	•		
PERMIX-MC96	25	50	3105	•	•	•		•			•	•	•	•	-	•	
PERMIX-MC480E	25	50	3105	•					-		-		•				
BENZOYL PEROXIDE	- PASTE																
BETOX-50PC WHITE / RED	25	50	3108						-	-							
BETOX-BM50R WHITE / RED	25	50	3108						•	-							
All information concerni				. 4: <b>6</b>								1 1		-1:-1-1- 0			

All information concerning products and suggestions for handling and use contained herein are offered in good faith and are believed to be reliable. Oxytop company makes no warranty as to accuracy and sufficiency of the information, as to compliance or fitness for any particular purpose. The Company does not warrant against infringement of patents of third parties by reason of any uses made of this product. Buyer must determine for himself by preliminary tests or otherwise the suitability of the product for his purpose.







We have been producing organic peroxides for copolymerization of unsaturated polyester resins since 1992. We do it with passion and great commitment, obtaining high-quality products. Although we know a lot on peroxides, we are developing the culture of continuous improvement. True humility to nature's laws enables us to create products of high purity. While the products we produce will never be environmentally friendly, we select the components with



much attention, to minimize the risk they pose. We surround our plant with greenery to prove that the highly complex chemistry can co-exist with nature.

#### **TECHNOLOGY & QUALITY**

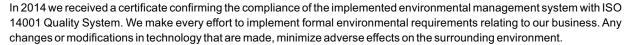




We have fully submitted to REACH registration to protect the long-term future of our products and build the confidence on their high quality. In 2013 we completed appropriate registration of Metox initiator. In 2018 we registred in ECHA Cetox and Pentox initiators. In consequence, we have access to the latest knowledge on properties of chemicals and their effects on human health. We also have greater opportunities towards reducing the risks associated with their use.

To meet the demands of our customers and in order to achieve the highest quality of our products, in 2006 we introduced a quality management system which complies with ISO 9001 Quality System. We have always made the effort to ensure that the quality and efficiency of our work was at the highest level and our actions were aimed at achieving the best results.

## CARE FOR ENVIRONMENT





Hardeners from Metox family are solutions of various concentrations in plasticizer - dimethyl phthalate (DMP). DMP is an odourless or barely perceptible odor liquid. In accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 (CLP) the plasticizer is not classified as hazardous and do not subject to labeling obligations. In view of the above, it can be concluded that all the threats that come from hardeners are generated by organic peroxides, not by the plasticizer, which is about 60% of the whole. It should be noted that most of the standard hardeners have warnings on dangers (pictograms GHS05, GHS02, GHS09). Due to this fact, even though the substances manufactured by us are created with the highest concern for the environment, it can not be assumed that the finished product is environmentally friendly.

TUBE 8g

#### **PACKAGING**

### Liquid peroxide initiators



BOTTLE 20ml
BOTTLE 30ml
BOTTLE 50ml
BOTTLE 100ml
BOTTLE 0,5kg
BOTTLE 1kg
HDPE JERRYCAN 5kg
HDPE JERRYCAN 20kg

#### Peroxide initiators in paste form

TUBE 15g
TUBE 20g
TUBE 25g
TUBE 45g
TUBE 50g
CARTRIDGE 60g
CAN 1kg
PAIL 5kg
PAIL 20kg
PASTEBOX 25kg
STEEL DRUM 225 kg

#### CONTACT



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GPS N: 52° 16' 09" E: 16° 38' 42"