

QUALITY PROTECTS.

LANXESS Flame Retardants

Product guide

QUALITY WORKS.

LANXESS
Energizing Chemistry

Flame retardants	Chemical description	PVC	PVC-P	PVC-U	Polyurethane	Rigid PUR	Flexible PUR	TPU	Polyolefins	PP	PE	TPO	EPDM	Styrenics	HIPS	ABS	PC/ABS	HIPS/PPPE	XPS	EPS	Engineering plastics	PA 6	PA 66	HTPA	PBT	PET	PC	Thermosets	UP	EP	PF	Other	Cellulosics	Synthetic rubber	Textiles	Wood, natural fibers	Highlights																			
Flame retardants – phosphorus-based																																																								
Amgard® CT	Organic phosphonate																																			■	Designed especially for polyester fibers, durable FR treatment																			
Amgard® CU	Organic phosphonate																																		■	Designed especially for polyester fibers, durable FR treatment																				
Disflamoll® 51036	Phosphate ester blend		■					■																														Especially designed for artificial leather																		
Disflamoll® 51092	Butylated triphenyl phosphate		■			■	■	■																														Excellent flame retardance, low odor																		
Disflamoll® DPK	Cresyl diphenyl phosphate		■			■		■										■	■																			Excellent flame retardance																		
Disflamoll® DPO	2-Ethylhexyl diphenyl phosphate		■					■																														Excellent plasticizing properties, light-fast																		
Disflamoll® TKP	Tricresyl phosphate		■					■																														Very low PVC-gelling temperature																		
Disflamoll® TKP-P	Tricresyl phosphate		■					■																														Purer version of TKP, especially for non-plastic applications																		
Disflamoll® TOF	Tris-(2-ethylhexyl) phosphate		■										■																									Excellent cold flexibility, alternative to oil-based processing aids																		
Disflamoll® TP	Triphenyl phosphate														■		■	■																				Little plasticizing efficiency, supply form pellets or melt (melting point >48°C)																		
Disflamoll® TP LXS 51064	Aqueous solution of phosphonate salt																																		■	Designed for wood and wood-based products																				
Emerald Innovation® NH-1	Proprietary					■	■	■																														Excellent scorch resistance																		
Levagard® 2000	Oligomeric phosphate ester					■	■																															Compatible with polyether and polyester polyols																		
Levagard® 3000	Oligomeric phosphate ester						■																															Compatible with polyether and polyester polyols																		
Levagard® 3001	Oligomeric phosphate ester composition						■																															Compatible with polyether and polyester polyols																		
Levagard® 4090 N	N,N-hydroxyethylaminoethane phosphonic acid ester						■																															Reactive product																		
Levagard® DMPP	Dimethylpropane phosphonate						■																															Very high phosphorus content																		
Levagard® PP	Tris (2-chloroisopropyl) phosphate (TCPP)						■																															Cl / P-synergism, excellent efficiency																		
Levagard® TEP-Z	Triethyl phosphate						■																															High phosphorus content, very low viscosity																		
Levagard® TP LXS 51114	Phosphorus compound						■	■																															Very low volatility, compatible with polyether and polyester polyols																	
Reofos® 1800	Isopropylated triphenyl phosphate		■				■	■																														Special quality available on request																		
Reofos® 35	Isopropylated triphenyl phosphate		■				■	■																															Good low-temperature properties, high plasticizing efficiency, fast gelation																	
Reofos® 50	Isopropylated triphenyl phosphate		■				■	■																														High plasticizing efficiency, fast gelation																		
Reofos® 65	Isopropylated triphenyl phosphate		■				■	■																															Imparts good electrical and oil resistance																	
Reofos® 95	Isopropylated triphenyl phosphate		■				■	■																															Imparts good electrical and oil resistance, low volatility																	
Uniplex FRX 44-94	N and P containing powder blend																																						Fine particle size, light-fast																	
Flame retardants – brominated																																																								
BA-59P	Tetrabromobisphenol A																																							Reactive flame retardant for epoxies																
BC-52	Phenoxy-terminated carbonate oligomer																																							High thermal stability																
BC-58	Tribromophenoxy-terminated carbonate oligomer																																							High bromine content																
Emerald Innovation® 3000 ¹⁾	Brominated styrene butadiene copolymer																																						Polymeric, HBCD replacement for XPS and EPS																	
Firemaster® BZ-54	Tetrabromophthalic anhydride derivative		■				■	■																															Low volatility in automotive fogging tests, excellent hydrolytic stability																	
Firemaster® CP-44HF	Copolymer of dibromostyrene																																						Low molecular weight, polymeric, better flow, higher blister resistance temperature																	
Firemaster® PBS-64HW	Poly (dibromostyrene)																																						Polymeric, higher glass transition temperature than PDBS-80																	
Firemaster® 504	Tetrabromophthalate diol blend						■																																Br/P-synergism, low viscosity, improved process handling and storage characteristics																	
Firemaster® 508	Tetrabromophthalate diol blend						■																																Low viscosity, improved process handling and storage characteristics versus neat PHT-4-Diol																	
Firemaster® 600	Tetrabromobenzoate ester composition						■																															Br/P-synergism, low scorch																		
Firemaster® 602	Tetrabromobenzoate ester composition						■																															Br/P-synergism, low scorch																		
Firemaster® 2100R	Decabromodiphenyl ethane							■		■	■	■	■																										Excellent balance of physical properties, flammability performance and processability																	
PDBS-80	Poly (dibromostyrene)																																						Polymeric, higher thermal stability than PBS-64HW and 44-HF																	
PHT-4	Tetrabromophthalic anhydride																																						High bromine content, crystall powder, reacts with unsaturated polymer																	
PHT-4-Diol	Tetrabromophthalate diol						■	■																															Reactive, excellent compatibility with a broad range of commercial polyols and blowing agents																	
PHT-4-Diol LV	Tetrabromophthalate diol						■	■																															Low-viscosity version of PHT-4 Diol, improved process handling and storage characteristics																	
PH-73FF	2,4,6-Tribromophenol																																						Intermediate, can be used as a flame retardant for epoxies																	
Uniplex FRP-45	Di-(2-ethylhexyl) tetrabromo phthalate		■				■																																Outstanding thermostability, good hydrolytic stability, low volatility																	
Uniplex FRP-64	Poly(2,6-dibromophenylene oxide)																																						Brominated polymer, little discoloration																	

■ Recommended ■ Suitable ¹⁾ Emerald Innovation® 3000 is based on technology licensed from DuPont.



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Unless specified to the contrary, the values given have been established on standardized test specimens. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that the results refer exclusively to the specimens tested. Under certain conditions, the test results established can be affected to a considerable extent by the processing conditions and manufacturing process.

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