

QUALITY PERFORMS.



Solutions for versatile applications
Additives for polyurethanes

QUALITY WORKS.

LANXESS
Energizing Chemistry

ADDITIVES FOR POLYURETHANES

Product	Chemical description	Rigid foam				Flexible foam		
		Panels & Bunstock	Spray Foam	Appliance & Pipe Insulation	1 K	Slab-ester	Slab-ether	Molded-integral
Flame Retardants								
Amgard® CU	Organic phosphonate					■	■	■
Disflamoll® 51036	Phosphate ester blend					■	■	■
Disflamoll® 51092	Butylated triphenyl phosphate	■				■	■	■
Disflamoll® DPK	Cresyl diphenyl phosphate	■						
Disflamoll® DPO	2-Ethylhexyl diphenyl phosphate							
Disflamoll® TKP	Tricresyl phosphate							
Disflamoll® TOF	Tris(2-ethylhexyl) phosphate							
Emerald Innovation™ NH-1	Phosphorus compound					■	■	■
Firemaster® BZ-54*	Tetrabromophthalic anhydride derivative					■	■	■
Firemaster® 504/508*	Tetrabromophthalate diol blend	■	■					
Firemaster® 600/602*	Tetrabromobenzoate ester composition					■	■	■
Firemaster® 2100R	Decabromodiphenyl ethane							
Levagard® 2100	Reactive phosphorus compound	■	■					
Levagard® 3000	Oligomeric phosphate ester	■				■	■	■
Levagard® 4090 N	N,N-hydroxyethylaminoethane phosphonic acid ester	■	■					
Levagard® DMPP	Dimethylpropane phosphonate	■						
Levagard® PP	Tris(2-chloroisopropyl) phosphate (TCPP)	■	■		■		■	
Levagard® TEP-Z	Triethyl phosphate	■	■		■			
Levagard® TP LXS 51114	Phosphorus compound					■	■	■
PHT4-Diol™	Tetrabromophthalate diol	■	■					
PHT4-Diol™ LV	Tetrabromophthalate diol	■	■					
Reofos® 35	Isopropylated triphenyl phosphate	■				■	■	■
Reofos® 50	Isopropylated triphenyl phosphate	■				■	■	■
Reofos® 65	Isopropylated triphenyl phosphate	■				■	■	■
Reofos® 95	Isopropylated triphenyl phosphate	■				■	■	■
Uniplex FRP-45	Bis(2-ethylhexyl) tetrabromophthalate				■			
Uniplex FRX 44-94	N and P containing powder blend							
Catalysts								
Addocat® DB	Benzyltrimethylamine (BDMA)	■		■		■		
Addocat® PP	Blend of tertiary amines	■		■		■		
Addocat® SO	Tin(II) 2-ethylhexanoate (SO)		■			■	■	■
Addocat® 10/9	Aminoalkanol ester							
Addocat® 105	Triethylenediamine (TEDA) in DPG	■	■	■			■	■
Addocat® 108	Bis(2-dimethylaminoethyl)ether (BDMAEE) in DPG	■	■	■			■	■
Addocat® 117	1,4-Dimethylpiperazine (DMP)	■		■		■		
Addocat® 118	2,2-Dimorpholinodiethylether (DMDEE)	■	■	■	■	■	■	■
Addocat® 1221 VN	Blend of tertiary amines in a polyether polyol	■						
Addocat® 1656 N	Blend of tertiary amines	■						
Addocat® 1926	Blend of tertiary amines in a polyether polyol	■		■				
Emulsifiers & Foam Stabilizers								
Addovate® DD 1092	Ionic emulsifier							
Addovate® EM	Non-ionic emulsifier					■		
Addovate® SM optimized	Ionic emulsifier	■	■	■		■		
Addovate® SV	Ionic emulsifier					■		
Addovate® TX	Ionic emulsifier					■		
Addovate® WM	Non-ionic emulsifier					■		
Addovate® 3240	Non-ionic emulsifier					■		
Crosslinkers								
Addolink® 1604	Isobutyl 4-chloro-3,5-diaminobenzoate (CDABE)							
Yapox® CL 30/10	Hydroquinone bis(2-hydroxyethyl)ether (HQEE), > 99.5%							
Yapox® LM 30/10	Hydroquinone bis(2-hydroxyethyl)ether (HQEE), ≥ 90.0%							
Hydrolysis Stabilizers								
Stabaxol® I	Monomeric carbodiimide							
Stabaxol® L	Monomeric carbodiimide							
Stabaxol® P 200	Polymeric carbodiimide					■		
Stabaxol® P	Polymeric carbodiimide							
Stabaxol® P 100	Polymeric carbodiimide							
Plasticizers								
Adimoll® DO	Bis(2-ethylhexyl) adipate (DEHA)							
Mesamoll®/Mesamoll® II	Alkylsulfonic phenyl ester (ASEP)							
Ultramoll® VII	Adipic acid polyester							
Ultramoll® VII LV	Adipic acid polyester							
Other PUR Additives								
Addovate® BA	Aqueous polyurethane dispersion							
Addovate® LP	Alkali aluminium silicate in castor oil							
Addovate® Thermostab	Aromatic ester of phosphorous acid							
Potlife Enhancer® II	Organic acid chloride in Mesamoll® II							

* not available in the EU

Cast	Elastomers		Coatings	Adhesives	Sealants	Special characteristics
	Cellular	TPU				
			■			High flame retardant efficiency
			■			Good low temperature performance
■		■	■	■	■	General purpose flame retardant
■		■	■	■	■	General purpose flame retardant
■		■	■	■	■	FDA approval
		■				Low emissions
			■	■	■	Excellent low temperature performance
						Low scorch
		■				Low volatility in automotive fogging tests, excellent hydrolytic stability and scorch resistance
						Br / P-synergism, low viscosity, improved process handling & storage vs. neat PHT4-Diol™
						Br / P-synergism, low scorch
		■				Excellent balance of physical properties, flammability performance and processability
■	■					Reactive
■			■	■	■	Low emissions, compatible with polyether & polyester polyols
■						Reactive
■						High flame retardant efficiency
■			■	■	■	Standard flame retardant for all types of rigid PUR/PIR foam
■			■			Effective viscosity reducer
						Low emissions
		■				Reactive, excellent compatibility with a broad range of commercial polyols & blowing agents
■		■				Reactive, low viscosity, improved process handling & storage vs. neat PHT4-Diol™
■		■	■	■	■	General purpose flame retardant
■		■	■	■	■	General purpose flame retardant
■		■	■	■	■	General purpose flame retardant
■		■	■	■	■	Low volatility
				■		Used in 1K construction adhesives
			■			Low water solubility, fine particle size, light-fast
	■		■	■	■	Moderate activity universal gelling co-catalyst, good emulsifier
	■		■	■	■	Balanced catalyst, improves flowability, soluble in water
		■	■			Standard strong gelling catalyst, essential for flexible foam
			■	■		Moderate activity gelling catalyst, especially useful for wood coatings
		■	■	■	■	Strong multi-purpose gelling catalyst
			■	■		Standard strong blowing catalyst for rigid and flexible foams, improves flowability
			■	■		Latent gelling co-catalyst, improves solubility and surface cure
		■	■	■	■	Selective blowing catalyst for 1K systems, improves shelf-life
			■	■		Balanced catalyst for rigid foam, applicable to PIR formulations
			■	■		Strong balanced catalyst for rigid slabstock foam, applicable to PIR formulations
			■	■		Balanced catalyst for rigid foam with improved metering compared to Addocat® 726 B
■						Emulsifier for cellular elastomers (e. g. Vulkollan), extends cream time
	■					Strong emulsifier & dispersant, improves open-cell structure
	■					Aqueous emulsifier and foam stabilizer, prevents splits
	■					Aqueous emulsifier for cellular elastomers
						Strong foam stabilizer, promotes fine even cell structure
	■					Strong emulsifier & dispersant, prevents cell structure defects
	■					Emulsifier for low-odor foams (urea catalysis), improves open-cell structure
■						Long pot life, suitable for large volume articles. Good MBOCA substitute
■		■		■		Improves heat resistance, compression set & abrasion. Especially apt for TPU
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■	■	■	■	■	■	Excellent extension of material service life, acid scavenger
■	■	■	■	■	■	Excellent extension of material service life, acid scavenger
■	■	■	■	■	■	Excellent extension of material service life, liquid, water soluble, high thermal stability
■		■	■			Excellent extension of material service life, solid, high thermal stability
		■				Excellent extension of material service life, solid, high thermal stability
				■	■	Non-phthalate plasticizer with high lightfastness and low-temperature flexibility
				■	■	Non-phthalate plasticizer with high saponification resistance
				■		Non-phthalate polymeric plasticizer with high migration & extraction resistance
				■		Non-phthalate polymeric plasticizer with lower viscosity compared to Ultramoll VII®
			■	■		Bonding agent, improves adhesion of rigid integral skin foam to metal
			■	■	■	Drying agent for solvent-free polyurethane systems
			■			Stabilization of TPU, PC/ABS, PA/ABS, ABS & PA vs. thermo-oxidative degradation
			■	■	■	Delays the chemical reaction / crosslinking of isocyanates



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