

PRODUCT GUIDE CONCENTRATES FOR THERMOPLASTICS

○ FLAME RETARDANT
ADDITIVES

○ HEAT STABILIZERS



○ ODOR REDUCTION
ADDITIVES

○ NUCLEATION ADDITIVES

○ SPECIALTIES



Concentrates for thermoplastics (1/2)

Product	Polymer		Dosage		Process		Markets					Application remarks	
	Polyethylene	Polypropylene	As supplied (%)	Extrusion	Injection molding	LFT	Blow molding	Film/fiber	Transportation	Consumer goods	Packaging		Agricultural films
Anti-fog and anti-static additives													
BYK-MAX AF 4160* ¹	●		4.0–12.0	●				●				●	Efficient long lasting anti-fog additive; especially suitable for (L)LDPE film and sheets
BYK-MAX AS 4170	●		0.5–2.0	●	●			●	●	●	●		Long-lasting reduction in surface resistance; additionally providing anti-fog properties
BYK-MAX AS 4171		●	0.5–2.0	●	●			●	●	●	●		Long-lasting reduction in surface resistance; additionally providing anti-fog properties
Anti-scratch additives													
BYK-MAX ASC 4181	●	●	0.5–1.0	●	●				●	●			Silicone-free surface additive; improvement of scratch resistance and surface slip
BYK-MAX ASC 4182		●	1.0–3.0	●	●				●	●			Improvement of scratch resistance and surface slip
Flame retardant additives													
BYK-MAX FR 4143* ²	●	●	15.0–25.0	●	●				●	●			Halogen-free additives; formation of insulating intumescent protective layer
BYK-MAX FR 4144	●	●	2.0–5.0	●					●	●			Flame retardant synergists for HFFR formulations; improvement of dripping behavior and char formation
Heat stabilizers													
BYK-MAX HS 4301		●	1.5–3.0	●	●	●	●	●	●				LTHA of more than 1000 hours at 150 °C (e.g. in underhood application)
BYK-MAX HS 4302		●	1.5–4.0	●	●	●	●	●	●	●		●	LTHA of more than 1000 hours at 150 °C (e.g. in underhood application)
BYK-MAX HS 4303		●	1.5–3.0	●		●			●	●			LTHA of more than 1000 hours at 150 °C; especially suitable for GMT applications
BYK-MAX HS 4332* ³		●	1.0–3.0					●				●	Specifically designed for artificial turf applications
BYK-MAX HS 4334* ³		●	1.5–3.0	●	●	●			●	●			LTHA of more than 1000 hours at 150 °C (e.g. in structural applications); especially suitable for multiple heat processes
Heat stabilizers and coupling agents (multifunction)													
BYK-MAX HS 4342* ³		●	2.0–4.0	●	●	●			●	●			LTHA of more than 1000 hours at 150 °C; excellent glass fiber bonding in PP-GF (e.g. in structural applications)
BYK-MAX HS 4344* ³		●	2.0–4.0	●	●	●			●	●			LTHA of more than 1000 hours at 120 °C; excellent glass fiber bonding in PP-GF (e.g. in structural applications)
BYK-MAX HS 4350		●	2.0–4.0	●	●	●			●	●			LTHA of more than 1000 hours at 150 °C; excellent glass fiber bonding in PP-GF (e.g. in structural applications)

*¹ To be combined with UV package*² Delivery form: compact*³ Black-colored product



Concentrates for thermoplastics (2/2)

Product	Polymer		Dosage	Process		Markets					Application remarks			
	Polyethylene	Polypropylene	As supplied (%)	Extrusion	Injection molding	LFT	Blow molding	Film/fiber	Transportation	Consumer goods		Packaging	Agricultural films	Fibers and textiles
Light stabilizers														
BYK-MAX LS 4125	●		0.5–2.0	●	●		●	●	●	●		●	●	Outstanding for products with proportionally large surfaces (e.g. thick film, thick-wall products)
Nucleation additives														
BYK-MAX NU 4230 LDPE	●		2.0–5.0	●	●		●	●	●	●	●			Optimum balance between increased production speed and improved physical properties
BYK-MAX NU 4230 PP		●	1.0–3.0	●	●		●	●	●	●	●			Optimum balance between increased production speed and improved physical properties
BYK-MAX NU 4232		●	1.0–3.0	●	●		●	●	●	●	●			Designed for maximum increase of production speed
Odor reduction additives														
BYK-MAX OR 4206	●		0.5–2.0	●	●				●	●	●			Odor-absorbing to neutralize unpleasant odors especially in recycling systems
BYK-MAX OR 4207		●	0.5–2.0	●	●				●	●	●			Odor-absorbing to neutralize unpleasant odors especially in recycling systems
Processing additives														
BYK-MAX P 4104	●	●	0.8–2.0	●	●		●	●	●	●	●			Polymeric processing aid for reduced friction and viscosity, less melt fractures and higher throughput
BYK-MAX P 4200	●	●	0.5–2.0	●	●				●	●				Stripping agent for VOC and odor reduction for polyolefin recycling systems. Vacuum degassing required for optimum performance
Slip agents														
BYK-MAX SA 4190	●	●	0.3–1.0	●	●		●	●		●	●	●		Increasing surface slip and providing anti-blocking properties; better mold release in injection molding
BYK-MAX SA 4191		●	0.75–2.0	●	●		●	●		●	●	●		Increasing surface slip and providing anti-blocking properties; better mold release in injection molding
Specialties														
BYK-MAX STARTSTOP 4205	●	●	> 20.0	●										Preventing formation of "black spots" during idleness of extrusion lines

*1 To be combined with UV package

*2 Delivery form: compact

*3 Black-colored product

Abbreviations

GF Glass fiber

GMT Glass mat thermoplastic

HFFR Halogen-free flame retardant

LFT Long fiber thermoplastic

LTHA Long term heat aging

PP Polypropylene

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This issue replaces all previous versions.

