

**VIBIPLAST**

Rev. 5 (01/02/17)

Rubber Additives

Metal Oxide

Chemical description	Raw Material	Polymerbound	Note
Active zinc oxide	Acti.Z	ZNO AKTIV 60 GE F 140 ZNO AKTIV 80 GE F 140	BET 50 m ² / g
Zinc carbonate	ZYNKO3	ZN TRASP 60 GE F 140	Transparent
Zinc oxide	ZnO Gold Seal	ZNO 80 GE F 250	Gold Seal
Magnesium oxide	-	MGO 60 GE P 250	-
Antimony trioxide	-	TRIOXIDE 90 GE F 250	-

Retarders

Chemical description	Raw Material	Polymerbound	Note
PVI	PVI op	PVI 50 GE F 140 PVI 80 GE F 140	CTP
Retarder based on Vulkalent E	-	RETARDER E 80 GE F 140	-

Accelerators

Guanidines

Chemical description	Raw Material	Polymerbound	Note
1,3-diphenyl-guanidine	DPG op	DPG 75 GE F 140 DPG 80 GE F 140 DPG 80 GE F 140 DAX	-
Di-o-tolylbiguanidine	DOTG op	DOTG 70 GE F 140	-
1-o-tolylbiguanidine	OTBG op	OTBG 70 GE F 140 OTBG 80 GE F 140	-

Thiazoles

Chemical description	Raw Material	Polymerbound	Note
2-mercapto-benzothiazole	MTB op	MBT 75 GE F 140 MBT 80 GE F 140 MBT 80 GE F 140 DAX	-
Di(benzothiazol-2-yl) disulfide	MBTS op	MBTS 70 GE F 140 MBTS 75 GE F 140 MBTS 80 GE F 140 MBTS 80 GE F 140 DAX	GREEN or NATURAL
Zinc-2-mercapto-benzothiazole	ZMBT op	ZMBT 80 GE F 140	-

op: Oiled Powder pd: Powder gr: Granuls lq: Liquid DL: Dry-liquid DAX: Products specially designed for automatic dosing systems.

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Sulpenamides

Chemical description	Raw Material	Polymerbound	Note
<i>N</i> -cyclohexyl-2-benzothiazyl sulfenamide	CBS op	CBS 80 GE F 140	BLUE or NATURAL
<i>N,N</i> -dicyclohexyl- 2-benzothiazyl sulfenamide	DCBS op	DCBS 80 GE F 140	-
2-(morpholinothio) benzothiazole	MBS gr	MBS 80 GE F 140	BLUE or NATURAL
<i>N</i> -tert-butylbenzothiazyl sulfenamide	TBBS op	TBBS 75 GE F 140 TBBS 80 GE F 140	-

Thioureas

Chemical description	Raw Material	Polymerbound	Note
1,3-diethyl thiourea	DETU pd	DETU 80 GE F 140	-
<i>N,N'</i> -diphenylthiourea	DPTU op	DPTU 75 GE F 140 DPTU 80 GE F 140	-

Thiurames

Chemical description	Raw Material	Polymerbound	Note
Dipentamethylene thiuram hexasulfide	DPTH op	DPTH 70 GE F 140 DPTH 75 GE F 140	DPTT
Dimethyl diphenyl thiuram disulfide	MPTD op	MPTD 80 GE F 140	-
Tetraethyl thiuram disulfide	TETD op	TETD 75 GE F 140	-
Tetramethyl thiuram monosulphide	TMTM op	TMTM 75 GE F 140 TMTM 75 GE F 140 DAX TMTM 80 GE F 140	-
Tetramethyl thiuram disulphide	TMTD op	TMTD 70 GE F 140 TMTD 80 GE F 140 TMTD 80 GE F 140 DAX	ORANGE or NATURAL
Tetrabenzyl thiuram disulfide	TBzTD op	TBzTD 70 GE F 140 TBzTD 80 GE F 140	-
Tetrabutyl thiuram disulfide	TBTD lq	TBTD 60 DL TBTD 70 DL	Dry Liquid

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Carbamates

Chemical description	Raw Material	Polymerbound	Note
Zinc diethyl dithiocarbamate	ZDEC op	ZDEC 75 GE F 140 ZDEC 80 GE F 140	-
Zinc dibutyl dithiocarbamate	ZDBC op	ZDBC 80 GE F 140 ZDBC 80 GE F 140 DAX	-
Zinc dimethyl dithiocarbamate	ZDMC op	ZDMC 75 GE F 140 ZDMC 80 GE F 140 ZDMC 80 GE F 140 DAX	
Zinc dibenzyl dithiocarbamate	ZBEC op	ZBEC 70 GE F 140 ZBEC 80 GE F 140 ZBEC 80 GE F 140 DAX	-
Zinc ethyl phenyl dithiocarbamate	ZEPC op	ZEPC 80 GE F 140	-
Tellurium diethyl dithiocarbamate	TDEC op	TDEC 75 GE F 140	-

Phosphates

Chemical description	Raw Material	Polymerbound	Note
Zinc dialkyl dithiophosphate	ZDTP 70 DL	ZDTP 50 GE F 140	BLUE or NATURAL

Antioxidants

Chemical description	Raw Material	Polymerbound	Note
Octylated diphenylamine	OCD flakes	-	-
Nickel dibutyl dithiocarbamate	NDBC op	-	-
2-mercaptobenzoimidazole	MB op	MBI 80 GE F 140	
4 and 5-methyl-2-mercapto benzimidazole	MMB op	MMBI 70 GE F 140 MMBI 70 GE F 140 DAX	
Zinc 4 and 5-methyl-2-mercapto benzimidazole	ZMMB op	ZMMB 50 GE F 140	
Bis[4-(2-phenyl-2-propyl)phenyl]amine (BPH)	N 445 pd	N 445 - 70 GE F 140	-
2,2'-Methylenebis(6-tert-butyl-4-methylphenol)	22M46 pd	22M46 - 75 GE F 140	-

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Vulcanizers

Chemical description	Raw Material	Polymerbound	Note
<i>Di(morpholin-4-yl)disulphide</i>	DTMD crystal powder	DTDM 80 GE F 140 DTDM 80 GE F 140 DAX	-
<i>Caprolactmadisulfide (DTDC)</i>	-	CLD 80 GE F 250	-
<i>N,N'-m-phenyl dimaleimide</i>	HVA 2 op	HVA 2 70 GE	-
<i>Sulphur</i>	Sulphur op	S 80 GE F 140 Sulphur S 80 GE F 140	-
<i>Insoluble Sulphur</i>	-	IS 60/75 GE F 140	75% of sulfur, in which 60% is insoluble sulfur
<i>Insoluble Sulphur</i>	-	IS 90/65 GE F 140	65% of sulfur, in which 90% is insoluble sulfur

Adhesion Promoter

Chemical description	Raw Material	Polymerbound	Note
<i>Hexakis(methoxymethyl)melamine</i>	-	HMMM 50 GE F 140	-

Silica

Trade name	Countertypes
Silica ZC 185 pd	Ultrasil VN 3 / Vulkasil S
Silica ZC 185 gr	Ultrasil VN 3 GR / Vulkasil S KG

Resins

Trade name	Countertypes
C 5 100 col. 5	Escorez 1102 - 2102
C 9 100 col. 10	Norsolene SP 95 / Novarez TD 100
C9 100 col. 16	Dark - brown (for black compound)

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Delta gran®

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Silane

Trade name	Countertypes
Si 69/50	Dry Liquid

Antiozone Waxes

Trade name	Countertypes
ANTIOZONE AO 54	Antilux 654 / Riowax 721

Processing Aids

Trade name	Countertypes
DELTAGRAN 4 flakes	Polyplastol 4
DELTAGRAN D 5 flakes	Strukt. D5 / Ultralube 888
DELTAGRAN 6 flakes	Ak. PP / Strukt. A50 / Poly 6 / Ultraflow 500
DELTAGRAN 15 drops	Polyplastol 15
DELTAGRAN 16 flakes	Strukt. WB 16 / Aflux 16 / Ultralube 160
DELTAGRAN 19 flakes	Polyplastol 19
DELTAGRAN 24 flakes	Struktol WA 48 / Ultralube 480
DELTAGRAN 25 drops	Struktol WB 215 / Aflux 25
DELTAGRAN 33 flakes	Strukt. W 33 FL / Ak. ST / Ultralube 330
DELTAGRAN 40 drops	Struktol 40 MS
DELTAGRAN 42 drops	Strukt. WB 42 / Aflux 42 / Ultralube 420
DELTAGRAN PN 60 flakes	Struktol A 60 / Ultraflow 600
DELTAGRAN 212 flakes	Strukt. WB 212 / Aflux 12 / Ultralube 200
DELTAGRAN 222 drops	Struktol WB 222 / Ultralube 220
DELTAGRAN FL PLUS flakes	Dispergator FL
DELTAGRAN T flakes	Aktioplast T / Ultraflow 600T

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