







MLPC International continues to develop and offer safer solutions of vulcanization system to customers through its own R&D

| <b>EKALAND</b><br>BY ARKEMA |                               | CHEMICAL NAME |   | CAN REPLACE             | USED WITH                      |
|-----------------------------|-------------------------------|---------------|---|-------------------------|--------------------------------|
| BQD 30 DS (*)               | PARABENZOQUINONE-DIOXIME      |               | ✓   |                         | XIIR, NR                       |
| BQD HU (*)                  | PARABENZOQUINONE-DIOXIME      |               | ✓   |                         | XIIR, NR                       |
| DATU LI (*)                 | BLEND OF DIALKYL THIOUREAS    |               | ✓   |                         | CR                             |
| DBTU CRA                    | DIBUTYL THIOUREA              |               | ✓   |                         | NR, SBR, NBR, IR, BR, CR       |
| DETU CR                     | DIETHYL THIOUREA              |               | ✓   |                         | CR, NR, SBR, NBR, EPDM         |
| DMTU CR (*)                 | DIMETHYL THIOUREA             |               | ✓   |                         | CR                             |
| DOTG C                      | DIORTHOTOLYL GUANIDINE        |               | ✓   |                         | CR, NR, SBR                    |
| DPG PD /C/ GC               | DIPHENYL GUANIDINE            |               | ✓   |                         | NR, SBR, BR, CR, NBR           |
| DPTU PD                     | DIPHENYL THIOUREA             |               | ✓   |                         | NR, SBR, NBR, EPDM             |
| ETU C                       | ETHYLENE THIOUREA             |               | ✓   | ETU (in EPDM compounds) | CR, CSM, CO, EPDM              |
| PPDN 30 DX/30 NDX/35 HU     | POLY-PARADINITROBENZENE       |               | ✓   | TDEC in EPDM            | for adhesion systems           |
| SD C (*)                    | BIS DIMERCAPTOTHIAZOLE        |               | ✓   | ETU                     | CR, EPDM, NR, NBR, SBR         |
| TBZTD C/PD                  | TETRABENZYL THURAM DISULFIDE  |               | ✓   | TMTD, TMTM              | CR, NR, IR, BR, SBR, NBR, EPDM |
| ZBEC C/PD (*)               | ZINC DIBENZYL DITHIOCARBAMATE |               | ✓   | ZDMC, ZDEC, ZDBC        | NR, SBR, NBR, IR, BR, CR, EPDM |

(\*) Available **only** on request

| <b>VULTAC</b><br>BY ARKEMA |   | CHEMICAL NAME |   | CAN REPLACE            | USED WITH                    |
|----------------------------|---|---------------|---|------------------------|------------------------------|
| VULTAC 2                   | PARA TERTIOAMYLPHENOL DISULFIDE POLYMER                               |               | ✓   | DTDM, TMTD, OTOS       | NR, SBR, NBR                 |
| VULTAC 3                   | PARA TERTIOAMYLPHENOL DISULFIDE POLYMER                               |               | ✓   | Phenolic resins        | BIIR, CIIR, EXXPRO in pharma |
| VULTAC 5                   | MIXTURE OF PARA TERTIOAMYLPHENOL DISULFIDE POLYMER WITH SILICAGEL     |               | ✓   | DTDM, TMTD, OTOS       | NR, SBR, NBR, CIIR, BIIR     |
| VULTAC 710                 | MIXTURE OF PARA TERTIOAMYLPHENOL DISULFIDE POLYMER WITH STEARIC ACID  |               | ✓   | Phenolic resins        | BIIR, CIIR, EXXPRO in pharma |
| VULTAC TB7                 | PARA TERTIOBUTYLPHENOL DISULFIDE POLYMER                              |               | ✓   | DTDM, TMTD, OTOS, 6PPD | NR, SBR, NBR, BIIR, CIIR     |
| VULTAC TB710               | MIXTURE OF PARA TERTIOBUTYLPHENOL DISULFIDE POLYMER WITH STEARIC ACID |               | ✓   | DTDM, TMTD, OTOS       | NR, SBR, NBR, BIIR, CIIR     |

| <b>MIXLAND+</b><br>BY ARKEMA<br><b>MIXLAND</b><br>NEWGEN<br>BY ARKEMA |   | CHEMICAL NAME |   | CAN REPLACE                    | USED WITH                       |
|---|---|---------------|---|--------------------------------|---------------------------------|
| CBS   | N-CYCLOHEXYLBENZOTHIAZOLE-2-SULFENAMIDE                 |               | ✓   | MBS, DCBS, TBBS                | NR, IR, BR, SBR, NBR, IIR, EPDM |
| CTPI (*)  | N-CYCLOHEXYLTHIO PHTALIMIDE                             |               | ✓   |                                | NR, SBR, NBR, IR, BR, CR, EPDM  |
| DETU  | DIETHYL THIOUREA  |               | ✓   |                                | CR, NR, SBR, NBR, EPDM          |
| DOTG  | DIORTHOTOLYL GUANIDINE                                  |               | ✓   |                                | CR, NR, SBR, ACM                |
| DPG   | DIPHENYL GUANIDINE                                      |               | ✓   |                                | NR, SBR, BR, CR, NBR            |
| ETU   | ETHYLENE THIOUREA                                       |               | ✓   |                                | CR, CSM, CO, EPDM               |
| HMT   | HEXAMETHYLENE-TETRAMINE                                 |               | ✓   |                                | CR, EPDM, SBR, BR, NBR          |
| MBT   | 2-MERCAPTOBENZOTHIAZOLE                                 |               | ✓   | MBS, TBBS                      | NR, IR, BR, SBR, NBR, IIR, EPDM |
| MBTS  | MERCAPTOBENZOTHIAZOLE DISULFIDE                         |               | ✓   | MBS, TBBS                      | NR, IR, SBR, BR, NBR, EPDM, CR  |
| MMBI  | (4 / 5)-METHYL-2-MERCAPTOBENZIMIDAZOLE                  |               | ✓   |                                | NR, IR, BR, SBR, NBR            |
| PBS-R   | N-PHENYL-N (TRICHLOROMETHYLSULFENYL)-BENZENESULFONAMIDE |               | ✓   |                                | NR, SBR, EPDM, BR, IR, NBR      |
| SOUFRE  | SULFUR  |               | ✓   |                                | NR, SBR, EPDM, BR, IR, NBR, CR  |
| SD  | BIS DIMERCAPTOTHIAZOLE                                  |               | ✓   | ETU                            | CR, EPDM, NR, NBR, SBR          |
| TBBS  | N-TERT-BUTYL-2-BENZOTHIAZOLE SULFENAMIDE                |               | ✓   | MBS                            | NR, IR, SBR, BR, NBR, EPDM      |
| TBP75   | POLY-TERT-BUTYLPHENOLDISULFIDE                          |               | ✓   | TMTD , sulfur donors, OTOS     | NR, IR, SBR, NBR, EPDM          |
| TBZTD   | TETRABENZYL THURAM DISULFIDE                            |               | ✓   | TMTD, TMTM                     | NR, IR, BR, SBR, NBR, EPDM      |
| ZBEC  | ZINC DIBENZYL DITHIOCARBAMATE                           |               | ✓   | ZDMC, ZDBC, ZDEC               | NR, SBR, NBR, IR, BR, CR, EPDM  |
| ZBOP  | ZINC OCTYL DITHIOPHOSPHATE                              |               | ✓   |                                | NR, SBR, NBR, IR, BR, EPDM      |
| ZDTP  | ZINC ALKYL DITHIOPHOSPHATE                              |               | ✓   | Dithiocarbamates+sulfur donors | NR, SBR, NBR, IR, BR, EPDM      |
| ZnO   | ZINC OXIDE  |               | ✓   |                                | Various rubbers                 |

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