



Harmonite in Rubber Compounds

Summary results from R&D study on Harmonite use in high volume industrial rubber compounds:
 EPDM hose covers and gaskets • Nitrile rubber floor mats • SBR/BR blend Grade 2 conveyor covers

Typical properties from select experimental formulas:

| | EPDM | Nitrile | SBR/BR blend |
|------------------------|-------------------------------------|---|---|
| Shore A Hardness | 62 | 55 | 62 |
| Tensile (psi) | 1,534 | 1,793 | 2,114 |
| Elongation @ break (%) | 495 | 646 | 582 |
| 50% Modulus (psi) | 239 | 129 | 162 |
| 100% Modulus (psi) | 373 | 188 | 238 |
| 200% Modulus (psi) | 654 | 347 | 530 |
| 300% Modulus (psi) | 888 | 564 | 955 |
| Tear Strength (lbf/in) | 175 | 172 | 209 |
| Compression Set (%) | 16.5 | 18.3 | 24.1 |
| Harmonite 70 dosing | 4-8 wt% - reduced soft clay content | 8% - replaced powdered coal & hard clay | 13.4% - replaced powdered coal; reduced aromatic process oil by 32% |