

List of Abbreviation

Abbreviations	Explanations
GHG	greenhouse gas
CO ₂	Carbon dioxide
RF	Return Factor
BPST	British Portable Skid Tester
ASTM	American Society for Testing and Materials
NSA	Nitrogen surface area
STSA	Statistical thickness surface area
OAN	Oil absorption number
COAN	Compressed oil absorption number
DBP	Di-butyl phthalate
TEM	Transmission electron microscopy
XRD	X-ray diffraction
ISNR	Indian standard natural rubber
NR	Natural rubber
SBR	Styrene butadiene rubber
SSBR	Solution styrene butadiene rubber
TDAE	Treated distillate aromatic extract
TMQ	2,2,4-trimethyl-1,2-dihydroquinoline
6PPD	N-(1,3-dimethylbutyl)-N-phenyl-p-phenylenediamine
CBS	N-Cyclohexyl-2-benzothiazole sulfenamide
CTP	N-(Cyclohexylthio) phthalimide
CBFS	Carbon black feedstock
CB	Carbon black
PBR	Polybutadiene rubber
FSSBR	Functionalized solution styrene butadiene rubber
BET	Brunauer, Emmett, and Teller
BTEAC	Benzyl tri-ethyl ammonium chloride
RPA	Rubber Process Analyzer
ML	Minimum torque
MH	Maximum torque
T _{s1}	Induction time
T _{s2}	Scorch time
T _{c50}	50% curing time
T _{c90}	Optimum curing time
CRI	Cure rate index
ARI	Abrasion resistance index
BR	Bound rubber
HBU	Heat Buildup
AFM	Atomic Force Microscopy
TGA	Thermogravimetric analysis
FWHM	Full width half medium
dV/dD	Differential volume distribution
TS	Tensile strength
M300	Modulus at 300% elongation

MPa	Mega pascal
Pa	Pascal
d_n	limit of the aggregate size, which occupies 'n%' of total aggregate volume in the carbon black
HRTEM	High resolution transmission electron microscopy
WT	Wet traction
RR	Rolling resistance