**ABSTRACT**

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**List of Abbreviations & Symbols**

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|  |  |
| --- | --- |
| wt % | Weight Percent |
| °C | Degree Celsius |
| MJ/kg | Mega joule per Kilogram |
| Kg/m3 | Kilogram per cubic meter |
| KgOE | Kilogram of Oil Equivalent |
| GCV  |  Gross Calorific value |
| SBR  |  Styrene Butadiene Rubber |
| BR  |  Butadiene Rubber |
| IR  | Isoprene Rubber |
| HDPE  | High Density Poly Ethylene |
| LDPE |  Low Density Poly Ethylene |
| PP |  Poly Propylene  |
| PVC  | Poly Vinyl Choloride |
| PET |  Poly Ethelene Terapthalate |
| PS |  Poly Styrene |
| EPT |  Ethylene Propylene Terpolymer |
| IIR  | Isobutylene Iso-prene Rubber |
| UV |  Ultraviolet |
| NR | Natural Rubber |
| PBR  | Polybutadiene Rubber |
| EPA  | European Pollution Authority |
| MJ  |  Mega Joule |
| FCC  |  Fluid Catalytic Craking |
| TGA  |  Thermo Gravimetric Analysis |
| KW  |  Kilowatt |
| N2  |  Nitrogen Gas |
| CT ratio  | Catalyst -Tyre ratio |
| ASTM  |  American Society for Testing Materials |
| FTIR  |  Fourier Transform Infra –Red  |
| CARS | Centre for Advanced Research in Sciences  |
| TCR  | Total Capital Requirement |
| FCI  | Fixed Capital Investment. |
| O-H | Hydroxyl stretching |
| N-H | Amines  |
| C-H | Carbon Hydrogen (Alkanes group) |
| C=C | Carbon Hydrogen double bonding  |
| C-O | Carbonyl Stretching |
| O-H | Alcohol, Phenol group |
| C≡C | Carbon Hydrogen Triple Bonding (Alkynes) |

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