# ABOUT MATERIAL REPOSITORY

## Input File Formatting

## Material Categorization

### Elastomers

1. **Natural Rubber (NR)**
2. **Synthetic Rubbers**
   * *Hydrocarbon-Based*: SBR, BR, EPDM, IIR.
   * *Polar Rubbers*: NBR, CR.
   * *Specialty Synthetics*: FKM, ACM.
3. **Silicone Rubbers (Q)**
4. **Polyurethanes (PU)**
   * Thermoset PU.
5. **Thermoplastic Elastomers (TPE)**
   * TPO, TPV, SBS, SEBS, *and* Thermoplastic PU (TPU).
6. **Others/Hybrid/Specialty Elastomers**
   * TPSiV, Bio-Based Rubbers.

### Foams

1. **Polymeric Open-Cell Foams**
2. **Polymeric Closed-Cell Foams**
3. **Others**

### Soft Biological Tissues

1. **Human**
2. **Animal**
3. **Others**

### Gels & Hydrogels

1. **Natural Polymer-Based** 
   * Collagen gels
   * Fibrin gels
   * Alginate hydrogels
   * Hyaluronic acid (HA) hydrogels
2. **Synthetic Polymer-Based**
   * PEG hydrogels
   * PAAm (Polyacrylamide) gels
   * PVA (Polyvinyl alcohol) hydrogels
3. **Composite/Hybrid**
   * Collagen-PEG hybrids
   * Nanocellulose-reinforced hydrogels
4. **Others**