

## **Summary of IS 17371:2020 – Geogrids for Flexible Pavements**

IS 17371:2020 specifies material properties and specifications for geogrids used for reinforcement/stabilization in base, subbase and subgrade in design of flexible pavement structures. This standard serves as a specification aid for material selection rather than a comprehensive design or construction manual.

### **1. Material:**

The standard classifies geogrids into **rigid** and **flexible** types and specifies material requirements stating that geogrid materials shall be non-biodegradable, inert to chemicals and resistant to UV light to ensure long term performance. For polyethylene terephthalate (PET) geogrids, it mandates a molecular weight threshold and limits on carboxyl end groups.

**2. Performance Requirements:** The standard provides the performance specifications for geogrids, including:

- **Dimensional Stability:** Geogrids shall be able to maintain their geometry during manufacture, transport and installation.
- **Strength Criteria:** Specifies tensile strength, chemical resistance, and UV exposure standards for both polyethylene terephthalate (PET) and polypropylene (PP) geogrids.

### **3. Labelling and Marking Requirements**

The Standard provides information regarding the marking requirements for identification and traceability including material type, lot number, and manufacturer details.

### **4. Packaging, Storage, and Handling**

The standard specifies the packing requirements, including the use of protective wrapping to safeguard against environmental factors such as moisture, sunlight, and dust. It also provides guidance on the safe storage and handling of geogrids.

### **5. Quality Assurance and Testing:**

The standard specifies sampling methods for geogrid quality control. It defines a "lot" and prescribes sample sizes based on lot size. Each sample is tested for key properties, including tensile strength, elongation, and UV resistance, with conformity determined by the number of allowed defects within each lot.

In Summary, IS 17371:2020 specifies requirements for selection of geogrids in flexible pavement applications.