Ceramics are made from admixture of mineral material (quartz sand) and clay binder with impurities such as chalk, dolomite and sulphates, mixing water. The mixture is shaped, dried and fired. During firing water, carbon dioxide and other gases are driven off, re-crystallization takes place and glass is formed producing a hard insoluble material.

Properties:
1. Ceramics very widely in degrees of the frost resistance and external chemical attack. Moisture content of ceramics effect greatly the size of ceramics due to drying contraction after manufacturing (Drying stage).
2. Increasing in firing temperature produce more complete re-crystallization and an increase in the formation of glass, which give greater density, hardness, strength, resistance to chemical and to frost.
3. After firing, expansion may occurred due to absorption of water by clay in ceramics particularly in floor and wall tiling.

The main ceramics products used in building are:
1. Fired clay and shale: Including ordinary bricks and clay roof tiles such as:
   - French
   - Mission
   - Spanish
   - Shingle
2. Terracotta: is made from yellow to brownish-red clays such as ordinary bricks and vitrified wall tiles.
3. Faience: is a glazed form of terracotta or stone ware. It is used where it is likely not to receive heavy knocks. Rounded corners rather than sharp places are suitable to use it. It must be avoid the salt crystallization or frost action inside the ceramics.
4. Fireclay: It is a simple products used in places where fire resistance is required, in which a high kaolin content in the clay binder provides high fire resistance.
5. Earthen ware: The raw material blended from different sources, may contain a considerable proportion of limestone. It is used as the body for the glazed wall tiles.