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Question: Highlight ten civil Engineering materials, their uses & properties in a tabular form

Uses & Properties of Civil Eng Materials

Civil Eng. Material	Uses of the material	Properties of the material
1 Sand (fine aggregate)	Sand is used for road construction (either for mixing with asphalt or as construction fill). It is also used for production of concrete blocks & bricks.	<ul style="list-style-type: none"> i) poor water retention ii) weak structure or no structure iii) high permeability iv) highly sensitive to compaction
2 Cement	<ul style="list-style-type: none"> i) It is used as the binding agent in concrete mainly ii) it is used in mortar for plastering iii) it is used for water tightness of structure. 	<ul style="list-style-type: none"> i) it has high compressive strength ii) it has the ability to not shrink upon hardening iii) it has the ability to flow iv) it sets & hardens when water is added to it.
3 Ceramics	<ul style="list-style-type: none"> i) it is used in the creation of tiles which in turn is used for decoration ii) it is also used in bricks 	<ul style="list-style-type: none"> i) it has high strength and hardness ii) it is unreactive with other chemicals iii) It is a good insulator iv) It has high melting points making them heat resistant

4	Steel	<p>i) They are used in building structures like bridges & sky scrapers</p> <p>ii) Stainless steels are used to produce offshore platforms & pipelines</p>	<p>i) Strength</p> <p>ii) durability</p> <p>iii) ductility</p> <p>iv) Weldability</p> <p>v) Toughness \approx 8</p>
5	Glass	<p>i) Glass is used as an insulation material in a building</p> <p>ii) it is also used as a transparent glazing material in the building envelope (windows, wall setc)</p>	<p>i) it absorbs, refracts or transmits light</p> <p>ii) it has excellent chemical resistance</p> <p>iii) it is strong and brittle</p> <p>iv) it is an excellent insulator</p>
6	Timber	<p>It is used as the casing for holding the concrete used in casting beams and columns</p> <p>ii) it is used light construction works like doors, windows, flooring & roofing</p>	<p>i) Hardness</p> <p>ii) workability</p> <p>iii) Durability</p> <p>iv) Density</p>
7	Mortar	<p>i) it is used to bind bricks, stones and concrete blocks together for masonry project</p> <p>ii) it is used to give a soft even bed between layers of brick for equal distribution of pressure over the bed</p>	<p>i) workability</p> <p>ii) Bond</p> <p>iii) Compressive strength</p>
8	Brick	<p>i) it is used for the construction of walls of any size</p> <p>ii) It is used for the construction of arches & cornices</p>	<p>i) Frost Resistance</p> <p>ii) Durability</p> <p>iii) Compressive strength</p> <p>iv) Density</p>

9 gravel
(coarse aggregate)

i) Coarse aggregate acts as inert filler material for concrete.
ii) They are mainly used in concrete, railway track ballast etc.

i) grading
ii) durability
iii) particle shape & surface texture
iv) absorption & surface moisture

10 Concrete

i) Concrete is a sustainable choice for residential and commercial projects
ii) Its superior structural integrity provides added degree of protection from the severe weather

i) high compressive strength
ii) high tensile strength
iii) Durability
iv) Creep
v) workability
vi) Segregation
vii) bleeding