Thermal Mass

Thermal mass is the ability of a material to store heat. Its value in building energy efficient homes is that while the material takes a long time to heat up, it also takes a long time to cool down, regulating the temperature in a building.

Have you ever felt the sidewalk or a rock after the sun has been on it?
That's thermal mass in action.

Thermal mass is often paired with passive solar design, to take advantage of, and hang onto, the sun's energy.

What kind of building materials can provide thermal mass?

Everything provides some thermal mass.

Dense materials that can hold a lot of heat are best.

- For example, concrete, absorbs heat when surroundings are warm, and will release heat later when surroundings are cool.
- Concrete floors or countertops.
- Stone tile floors or countertops.
- Rammed earth or adobe walls.
- A wall of water- how could you incorporate this into a house design, and how practical is it?