

SELF - HEALING MATERIALS – A REVIEW

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ABSTRACT

Self-Healing Materials today plays a major role in the field of study and research in materials. These are the type of materials where they can heal themselves from any impact that causes dislocation or irregular changes in structure. This paper discusses self-Healing Materials in depth and their major usage in Concretes. Also, several types of Self-Healing Materials will be discussed by producing block diagrams for clear understanding. Further, the usage of the capsule, mechanical strength, thermal analysis, and several structures will be discussed briefly in this paper. Also, the paper discusses several practical applications in daily usage. These are in the form of composites, polymers, Fiber Reinforced composites, coatings, ceramics, polyurethane foam coatings, matrices, etc., and applied in the form of capsules with micro-sized structures. These can also be termed as autonomous healing materials, automatic healing materials, and many more.

Keywords- Self-Healing Materials, Bio Concrete, Autonomous Healing Materials.

