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# Ladle Steel Slag Aggregate for Buildings

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The use of natural stones for use in concrete mixes depletes our natural resources and is not sustainable in the longer term. Industrial **ladle steel slag**, a by-product of steel-making with properties similar to those of natural stone and sand, makes a good substitute for natural stone in concrete. However, it contains free lime that leads to Alkaline Silica Reactivity or ASR, which, in turn, causes concrete to expand and weaken its structural strength.

Removing this free lime would solve the problem and this is exactly what EWTCOI and *NatSteel Holdings Pte Ltd* had collaborated to do. By subjecting **steel slag coarse aggregates** to a high-temperature treatment for 24 hours, they can use between 60% and 100% of the recycled material in concrete without compromising its compressive strength and other properties.

EWTCOI can partner you to build a green future with innovative solutions for your business.

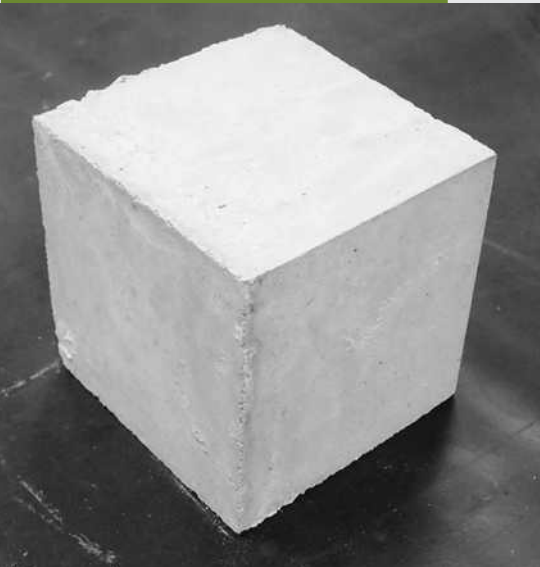
## Key Features & Benefits

- Substitute for coarse aggregate such as stone in concrete
- High compressive strength
- Reduced reliance on imported raw materials

## Application

- Replacement for stone in concrete for buildings

Grade 30 precast concrete with ladle steel slag as stone aggregates



Ladle steel slag is crushed and sieved into different particle size (coarse and fine aggregates)



Ladle steel slag



Crushed ladle steel slag



Sieved ladle steel slag



Sieved ladle steel slag

Compressive strength of Grade 30 precast concrete with 60%, 80% and 100% of ladle steel slag as stone

