Thank you for listening.

Steel Street

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What is steel?

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Steel is an alloy of iron and is one of the most diverse metals used in the construction industry. It is hard and grey in colour. When smelted in a blast furnace, other elements are used to enhance and manipulate its properties.

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Steel is widely used within the construction industry due to its favorable properties:

- High tensile and compressive strength rating.
- Highly durable.
- Can be formed to make components and parts.

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There are a number of different constituent components that form steel. Some of these are impurities and others are added due to their particular properties.

- Depends on the desired use.
- Elements can enhance/alter properties.

Iron

Iron is the main constituent element that forms the basis of steel.

Properties include:

- Ductile
- Malleable
- Easily corroded (water and oxygen)

(Lenntech 2016)

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Carbon

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Carbon is a non metallic element that is found within the chemical structure of iron and steel.

- Primarily used to strengthen low alloy and carbon steel.
- Only found in small quantities within alloy steel, as it can cause steel to become brittle.

Manganese

Manganese is a metallic element that can be used in steel production.

- Increases the yield strength and hardness of low carbon steels.
- It can also combine with sulfur to reduce brittleness.

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