# Investment Opportunities in Iron oxide

**Description:**

Iron oxide andoxide-hydroxide are widespread in nature, play an important role in manygeological and biological processes, and are widely utilized by humans, e.g.,as iron ores, pigments and catalysts in thermite. Common rust is a form of iron(III) oxide. Iron oxdes are widely used as inexpensive, durable, pigments inpaints, coatings and colored concretes. Colours commonly available are in the“earthy” end of the yellow/orange/red/brown/black range.

Iron oxides areproduced from ferrous sulfate by heat soaking, removal of water, decomposition,washing, filtration, drying and grinding. Chemical formula: Fe2O3. Appearance: Powder of size around 40micron.

Iron (III) oxide orferric oxide is an inorganic compound with the formula $Fe_2O_3$.It is one of the three main oxides of iron. As the mineral known as hematite, $Fe_2O_3$ is the main source of the iron for the steelindustry. $Fe_2O_3$ is ferromagnetic, dark red, and readilyattacked by acids. Iron (III) oxide is often called rust. To some extent thislabel is useful, because rust shares several properties and has a similarcomposition. To chemists, rust is considered an ill-defined material, describedas hydrated ferric oxide

The overwhelmingapplication of Iron (III) oxide is as the feedstock of the steel and ironindustries, e.g. the production of iron, steel, and many alloys. Black ironoxide has the highest tint strength, generally achieving saturation at 6percent dosage. Brown has a slightly lower tint strength, levelling -off atapproximately 7 percent dosage, followed by 8 percent for red and 9 percent foryellow.

The difference incolour/shade between one pigment and another is due to the surface structure ofthe particle. Pigments of the same family, such as reds for example, could havedifferent undertone. Upon dilution with a white extender, reds may appearpurple or pink. The reason for this is that a red pigment particle, dependingon its structure, may reflect the red component of light plus a certain amountof blue (purple undertone) or some yellow (pink undertone).

They are produced ineither anhydrous or hydrated forms. Their range of hues includes yellows, reds,browns and blacks. The food-quality iron oxides are primarily distinguishedfrom technical grades by their comparatively low levels of contamination byother metals; this is achieved by the selection and control of the source ofthe iron or by the extent of chemical purification during the manufacturingprocess.

**Applications**

Iron Oxide is a veryfine powder of ferric oxide known as “jewellers rouge”, “red rouge”, or simply“rouge”. It is used to put the final polish on metallic jewellery and lenses,and historically as a cosmetic. Rouge is sold as a powder, paste, laced onpolishing cloths or solid bar (with a wax or grease binder). Iron(III) oxide isalso used as a pigment in cosmetics. Additionally, Iron oxides are used aspigments in dental composites alongside titanium oxides. Iron Oxide pigmentsare also used in paints and coatings; colour concentrates; and mulch.

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**Keywords**

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