Industrial Minerals

Industrial minerals are non-metals including crushed rock, sand, and gravel. They are essential for construction of buildings and highways, and are used in many household products and industrial processes.

Basics

Industrial minerals are non-metal and non-fuel mineral resources including, for example, crushed rock, gravel, clays, sand (silica), gypsum, bentonite, and barite. They are the fundamental ingredients of roads and buildings, and they are essential for many industrial, commercial, and personal products and activities.

Frequently Asked Questions

How do pyrite and pyrrhotite damage building foundations?
American Geosciences Institute

Which mineral commodities used in the United States need to be imported?
American Geosciences Institute

Where can I find statistics about the supply and demand of industrial minerals?
American Geosciences Institute

What is frac sand?
American Geosciences Institute

Do you have a question that’s not listed here? Search all FAQs
Critical Minerals
Critical minerals are those that are essential to the economy and whose supply may be disrupted. Critical minerals also tend to be those on which a country is heavily import-reliant, so the minerals that are deemed critical will vary from country to country. Demand for many of these minerals has skyrocketed in recent years with the spread of high-tech devices that use a wide variety of materials.

Metals
Metals are found in many different places around the world. Many natural Earth processes affect their distribution and abundance. Metals are essential to our economy and lifestyle, and the global demand for metals continues to rise.

Mineral Resources
Global demand is rising for mineral resources of all kinds, including metals, industrial minerals, and solid fuels like coal. Mineral resources are unequally distributed around the globe, reflecting the vast differences in geology of different parts of the Earth. Geoscientists play an essential role in locating mineral resources and designing processes for their safe extraction.

Mining
Mining is essential to meet rising global demand for minerals. Geoscientists locate mineral resources and figure out how to extract them economically while minimizing health and environmental impacts. The method of mining, as well as potential environmental impacts, depends on the type of resource being mined.

Maps & Visualizations

Interactive map of offshore sand and gravel resources of the United States
Bureau of Ocean Energy Management

The Bureau of Ocean Energy Management's Marine Minerals Information System (MMIS) provides an interactive map with
information on offshore sand and gravel resources for 18 states on the Atlantic and Gulf coasts of the United States. The system includes: Sand and gravel resources Marine...

Case Studies & Factsheets

Creation of a zoning district for aggregate operations in Tooele County, Utah
Under pressure to restrict aggregate operations, county leaders in Tooele, Utah developed an ordinance to protect the stone, gravel, and sand industry as well as the environment. Between 1990 and 2000, the population of Tooele, Utah, increased 51.3 percent to 40,735. As demand for construction and...

Webinars & Forums

Building the Modern World: Geoscience that Underlies our Economic Prosperity
This webinar, also presented as a Congressional briefing on June 12th, brings together experts from industry, academia, and non-profits to discuss the geoscientific underpinnings of our economy and society.

GOLI Online Courses

Tracking the Global Supply of Critical Materials
Course Type: GOLI Online Course
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No country in the world produces all of the mineral resources necessary for modern society. International trade plays a critical role in providing these raw materials, forming a global network of production, export, import, and use. This network must continuously adapt to national and...