DOWNLOAD PDF TYPES OF RAW MATERIALS

Chapter 1 : Raw material - Simple English Wikipedia, the free encyclopedia

The term raw materials is sometimes used to describe only those materials that are found in nature, but in reality, industrial raw materials are any kind of basic material used by any industry to produce a product or service. This is an extremely broad category, and while entire books could be.

Glass wool and Fiber-reinforced plastic Fiberglass also called glass-reinforced-plastic [] [] is a composite material made up of glass fibers also called fiberglass [] or glass friller [] embedded in a plastic resin. These fibers are woven together into a cloth and left to set in a plastic resin. There are three classes of components for oxide glass: The intermediates titanium, aluminium, zirconium, beryllium, magnesium, zinc can act as both network formers and modifiers, according to the glass composition. Their mobility decreases the chemical resistance of the glass, allowing leaching by water and facilitating corrosion. Alkaline earth ions, with their two positive charges and requirement for two non-bridging oxygen ions to compensate for their charge, are much less mobile themselves and also hinder diffusion of other ions, especially the alkalis. The most common commercial glass types contain both alkali and alkaline earth ions usually sodium and calcium , for easier processing and satisfying corrosion resistance. Addition of lead II oxide lowers melting point, lowers viscosity of the melt, and increases refractive index. Lead oxide also facilitates solubility of other metal oxides and is used in colored glass. The viscosity decrease of lead glass melt is very significant roughly times in comparison with soda glass ; this allows easier removal of bubbles and working at lower temperatures, hence its frequent use as an additive in vitreous enamels and glass solders. For more details, see lead glass. Fluorine is highly electronegative and attracts the electrons in the lattice, lowering the polarizability of the material. Such silicon dioxide-fluoride is used in manufacture of integrated circuits as an insulator. High levels of fluorine doping lead to formation of volatile SiF2O and such glass is then thermally unstable. Stable layers were achieved with dielectric constant down to about 3. Amorphous metal Samples of amorphous metal, with millimeter scale In the past, small batches of amorphous metals with high surface area configurations ribbons, wires, films, etc. This was initially termed "splat cooling" by doctoral student W. Klement at Caltech, who showed that cooling rates on the order of millions of degrees per second is sufficient to impede the formation of crystals, and the metallic atoms become "locked into" a glassy state. Amorphous metal wires have been produced by sputtering molten metal onto a spinning metal disk. More recently a number of alloys have been produced in layers with thickness exceeding 1 millimeter. These are known as bulk metallic glasses BMG. Liquidmetal Technologies sell a number of zirconium-based BMGs. Batches of amorphous steel have also been produced that demonstrate mechanical properties far exceeding those found in conventional steel alloys. This phase is the first phase, or "primary phase", to form in the Al-Fe-Si system during rapid cooling. Experimental evidence indicates that this phase forms by a first-order transition. Transmission electron microscopy TEM images show that the q-glass nucleates from the melt as discrete particles, which grow spherically with a uniform growth rate in all directions. The diffraction pattern shows it to be an isotropic glassy phase. Yet there is a nucleation barrier, which implies an interfacial discontinuity or internal surface between the glass and the melt. In a mixture of three or more ionic species of dissimilar size and shape, crystallization can be so difficult that the liquid can easily be supercooled into a glass. The best-studied example is Ca0. Glass electrolytes in the form of Ba-doped Li-glass and Ba-doped Na-glass have been proposed as solutions to problems identified with organic liquid electrolytes used in modern lithium-ion battery cells. Many molecular liquids can be supercooled into a glass; some are excellent glass formers that normally do not crystallize. An example of this is sugar glass. The substance was named amorphous carbonia a-CO2 and exhibits an atomic structure resembling that of silica. These are useful because the solubility of the compound is greatly increased when it is amorphous compared to the same crystalline composition. Many emerging pharmaceuticals are practically insoluble in their crystalline forms. Glass-ceramic materials share many properties with both non-crystalline glass and crystalline ceramics. They are formed as a glass, and then partially crystallized by heat treatment. For example, the microstructure of whiteware ceramics frequently contains both amorphous and crystalline phases. Crystalline grains are often embedded within a

non-crystalline intergranular phase of grain boundaries. When applied to whiteware ceramics, vitreous means the material has an extremely low permeability to liquids, often but not always water, when determined by a specified test regime. The most commercially important of these have the distinction of being impervious to thermal shock. Thus, glass-ceramics have become extremely useful for countertop cooking. The negative thermal expansion.

Chapter 2 : What Are the Different Types of Chemical Raw Materials?

Definition: Raw materials are the inputs or resources that a company uses to manufacture its finished calendrierdelascience.com other words, this is the unprocessed material like metal stock, rubber blanks, or unrefined natural resources that companies use in there manufacturing processes to produce finished goods to sell to consumers.

A production-systems expert lists the following key features of the JIT approach. An important goal of a JIT system is to establish a smooth production flow, beginning with the arrival of materials from suppliers and ending with the delivery of goods to customers. Widely fluctuating production rates result in delays and excess work-in-process inventories. These non-value-added costs are to be eliminated. Under the pull method, goods are produced in each manufacturing stage only as they are needed at the next stage. This approach reduces or eliminates work-in-process inventory between production steps. The result is a reduction in waiting time and its associated non-value-added cost. The pull method of production begins at the last stage of the manufacturing process. When additional materials and parts are needed for final assembly, a message is sent to the immediate preceding work center to send the amount of materials and parts that will be needed over the nexrt few hours. Often this message is in the form of a withdrawal Kanban, a card indicating the number and type of parts requested from the preceding work center. The receipt of withdrawal Kanban in the preceding work center triggers the release of a production Kanban, which is another card specifying the number of parts to be manufactured in that work center. This pull approach to production is repeated all the way up the manufacturing sequence toward the beginning. Nothing is manufactured at any stage until its need is signaled from the subsequent process via a Kanban. As a result, no parts are produced until they are needed, no inventories build up, and the manufacturing process exhibits a smooth, uniform flow of production. This is an outgrowth of the pull method of production planning. Materials are purchased and goods are produced only as required, rather than for the sake of building up stocks. The result is a reduction in storage and waiting time, and the related non-value-added costs. In order to produce in small lot sizes, a manufacturer must be able to set up production runs quickly. Advanced manufacturing technology aids in this process, as more and more machines are computer-controlled. If goods are to be manufactured just in time to meet customer orders, a manufacturer cannot afford significant production delays. By strictly adhering to routine maintenance schedules, the firm can avoid costly down time from machine breakdowns. Under this approach, materials and parts are purchased from outside vendors only as they are needed. This avoids the costly and wasteful buildup of raw material inventories. The following are five 5 key features of JIT purchasing. Only a few suppliers. This results in less time spent on vendor relations. Only highly reliabled vendors are used, who can deliver high quality goods on time. Long- term contracts negotiated with suppliers. Materials and parts delivered in small lot sizes immediately before they are needed. Only minimal inspection of delivered materials and parts. Grouped payments to each vendor. Instead of paying for each delivery, payments are made for batches of deliveries according to the terms of the contract. This reduces costly paperwork for both the vendor and the purchaser. JIT is an important operational system for manufacturing and supplying companies to adopt and implement. Technically, procedurally and managerially it requires attention to:

Chapter 3 : What are Raw Materials? - Definition | Meaning | Example

Raw materials are materials or substances used in the primary production or manufacturing of goods. Raw materials are often referred to as commodities, which are bought and sold on commodities.

Definitions The term production covers a variety of activities, including manufacturing, processing, generating, assembling, refining, mining, and extracting. Manufacturing generally results in the creation of a product that is substantially different from its component parts in form, character, composition, and usefulness. A steel manufacturer combines iron with carbon to make commercial steel. This is a manufacturing operation. Processing generally results in a change in the nature, shape, or form of materials. To make decorative landscaping stone, chunks of rock are passed through a series of crushers which reduce the chunks into smaller sizes. This is a processing operation. Generating is the creation of a product such as electricity, steam, or refrigeration by means of a natural or chemical process. Hydroelectric power is produced by causing water to fall or flow over turbine blades. The production of hydroelectric power is a generating operation. Assembling is a manufacturing operation, or a process associated with a manufacturing operation, that produces goods by fitting together various parts to make a complete product. A manufacturer of cars has a production line where various components engines, frames, doors, windows, etc. This is an assembly operation. Refining is the operation by which impurities or unwanted elements are removed from a product. Production of gasoline, motor fuels, and fuel oils from crude oil is a refining operation. Mining is the operation by which minerals are removed from the earth through either surface or underground excavations. Producing granite slabs from a quarry is a mining operation. Extracting is a manufacturing operation, or a process associated with a manufacturing operation, in which oil, gas, or mineral deposits are removed from their natural underground reservoirs. Drilling a well to remove natural gas from the ground is an extracting operation. A manufacturing process can generally be broken down into three phases: The administration phase, which includes sales, promotion, accounting, purchasing, general facility maintenance, clerical work, and the receiving and testing of raw materials. The production phase, which includes the actual production process, starting with the handling and storage of raw materials at the plant site, continuing through the production and quality control testing of products, and ending with the last step of production where the resulting products are packaged and ready for sale. The distribution phase, which includes everything that takes place after the products are packaged and ready for sale, including storing, loading, shipping, displaying, and selling finished products. Machinery and equipment Machinery and equipment used directly and predominantly in the production of tangible personal property for sale can be purchased exempt from sales tax using Form ST , Exempt Use Certificate. Machinery and equipment used in the administration or distribution phases does not qualify for the exemption. Directly means that during the production phase the machinery or equipment must: A manufacturer has two forklifts. One forklift is used to unload the raw materials to be weighed and inspected before being placed in storage. The forklift does not qualify for the exemption because weighing and inspecting of raw materials is an administrative function. The second forklift is used to move materials throughout the production line. This forklift qualifies for the exemption. This is generally determined by hours of operation. A manufacturer of custom motorcycles purchases a welding machine for use in building motorcycle frames. Occasionally, the welding machine is used to repair other equipment within the shop. Computer equipment used directly in production also qualifies for the sales tax exemption. To qualify, the computers must: Computer equipment used in collateral or administrative functions such as computer equipment linked to production equipment that merely functions to collect data for administrative use does not qualify for the exemption. Raw materials A manufacturer may purchase raw materials that will become part of the finished product without paying sales tax by issuing Form ST , Resale Certificate, to its supplier. A manufacturer of fragrances purchases oils, dyes, and chemical compounds used in the production of perfume for sale. The manufacturer may purchase these items without paying sales tax by issuing Form ST , Resale Certificate, to the supplier. A furniture manufacturer purchases pine boards to make dining room tables. The furniture manufacturer may purchase the pine boards for resale without paying sales tax. Parts,

tools, and supplies Parts, tools, and supplies can also be purchased exempt from sales tax if they are used directly and predominantly in production. Parts are components of machinery or equipment that are actually attached to the machinery or equipment. A part cannot accomplish the work for which it was designed independent of the machine of which it is intended to be a component. Examples of parts are:

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Chapter 4 : Types of Derivatives to Hedge the Prices of Raw Materials | calendrierdelascience.com

Automobiles require a wide variety of raw materials for their production, including the iron used for steel, aluminum, glass, the petroleum products used to make plastics, rubber, and special.

Perry Romanowski Did you know that there are only 3 main categories of cosmetic raw materials? Really all of the ingredients used in cosmetics can be put into one of these three categories: The idea to look at cosmetic ingredients like this was inspired by the work biologists do in cladistics â€" the practice of grouping organisms based on similar characteristics. I present you with our version of cosmetic ingredient cladistics. Functional Functional cosmetic ingredients are ones which actually have an effect on the body that the formulator wishes. You cannot make a useful cosmetic product without including at least one functional ingredient. However, you could make an entire cosmetic using just one functional ingredient. Vaseline has built a huge brand on a single functional ingredient cosmetic Petrolatum. Functional ingredients include cleansers, conditioning agents, colorants, fragrances, reactive ingredients, film formers, and drug actives. Incidentally, functional ingredients are the ones that cosmetic chemists most want new raw material suppliers to make. The number of significantly different functional ingredients has not increased in many years. Aesthetic modifiers The most common and abundant type of cosmetic raw material is aesthetic modifiers. These are ingredients which help to make delivery of the functional ingredients more acceptable. They are the compounds that help the ingredients spread, dilute the ingredients, make them more stable, and improve the look and feel of the overall product. The sub-category of aesthetic modifiers includes solvents, thickeners, preservatives, fragrances, pH adjusters, plasticizers, fillers, appearance modifiers, anti-oxidants, anti-irritants, and delivery systems. This helps keep costs down and simplifies production. Consumers buy cosmetics because they like the story that the product tells. They like the packaging or the way that the product looks and smells. And to help support the marketing story and the claims made about the product, formulators have to include claims ingredients. Claims ingredients sometimes called fairy dust are ingredients added to a formula at a low level for the primary purpose of getting to put the ingredient name on the label. This includes ingredients like natural extracts, vitamins, proteins, biotechnology, and fanciful made-up ingredient names. However, most consumers need a story to believe when they buy their cosmetics and these ingredients help support that story. So there you have it. The Kingdoms of Cosmetic Ingredients. Are there any categories that we missed? Leave a comment below and let us know what you think.

Chapter 5 : The Three Types of Cosmetic Raw Materials â€“ Chemists Corner

Raw materials are any unprocessed substances that can be used to make something. This question is badly worded. If you cannot make the effort to even think up a clear question, then you shouldn't be posting on Quora.

Roles and Functions of Ceramic Raw Materials in the Ceramic Tile Body Ceramic raw materials are usually classified according to their functions in ceramic manufacture as well as their basic properties. It generally divides the ceramic raw materials in two basic groups that are the plastic and non-plastic raw materials. Further detail division depends on the material composition [1]. Plastic ceramic raw materials involve any clay material that when mixed with water reveals the property called plasticity. Plasticity may be defined as a property which allows the deformation of the clay when an external force is removed [2]. The large group of non-plastic ceramic raw materials include minerals, rocks and artificial chemicals that when mixed with water is not plastic. A part of the non-plastic ceramic raw materials acts as a filler, reducing high plasticity or shrinkage of the body when drying or firing. On the other hand, other non-plastic raw materials are used for sintering, fluxing and melting or to increase the refractoriness [1]. Plastic raw materials include kaolin, clay and bentonite while non-plastic raw materials are feldspar, quartz, limestone, dolomite, magnesite, calcium phosphate and talc. The classic or "triaxial" ceramic body consists of three major components: Typical raw materials normally used in a ceramic tile are clay, feldspar, pottery stone, silica sand and talc. Clay Generally, the most important component of a ceramic tile body is clay. Clay is a term for naturally occurring mineral aggregates consisting mainly of the hydrous silicate of alumina. Clay serves various functions such as a binder, a suspension aid and an inexpensive source of alumina and silica. Figure 1 shows a clay mine in operation. The term weathering means wearing down of all exposed masses of rock tending to reduce the land surface to sea level by different agencies such as water, wind or glacial. It is either a mechanical or physical process. Water in the form of rain or waves continuously wearing down the surface of rocks is a mechanical process. Wind moving at a high velocity can be destructive as well. The formation of clay is a chemical process that is assisted by mechanical breakdown and the separation of fine particles from coarse grains [5]. Clay mine Clays were formed by alteration, through aging and weathering of rocks such as granite, feldspar, mica and quartz. At the origin, they are known as residual or primary clays. The clays were formed at the site of the parent rock and were not transported by any of the various agencies such as wind and water. Primary clays for eg. These deposits are coarse grained and non-plastic as the clay was not transported by water [6,7]. Therefore, there was no selective sorting of various particle sizes. Primary clays are normally uncontaminated by non-clay minerals as most of the primary clays originated from pure feldspar. Most kaolins are primary clays [6]. The fired colour of the china clay is white as it has a high degree of purity. Therefore, it is suitable for manufacturing china and porcelain. In addition, it is refractory due to its low impurity content. Figure 2 shows a micrograph of the kaolinitic stack using the polarizing microscope transmitted light. Kaolin and quartz images under polarizing microscope transmitted light If the clays are transported by wind or water from their original point of formation, they are known as sedimentary or secondary clays [8,9]. The action of the water tends to grind up the clay into a much smaller particle size. Sedimentary clays for eg. This process of sedimentation separates the coarse from the fine and only the very fine particles will be carried to the final deposit. The sedimentary clays are likely to be contaminated with impurities or accessory minerals that are picked up along the way such as muscovite, biotite, quartz, iron oxide, rutile and garnet [6]. Transported clays are usually made up of clay from various sources. Sediments from numerous sites are likely to be mixed together with the presence of carbonaceous matter. Secondary clays are therefore fine-grained and plastic. Glacial clays and aeolin or wind deposited clays are also considered secondary clays. The fired colour is normally more buff than china clay that is usually white. The presence of organic and other impurities as they were re-deposited in low lying swampy areas may be the root cause of the darker fired colour. The ball clays are mainly kaolinite but they are much finer than china clay and the impurities present are also very fine as well. The sources of clay-forming minerals are aluminouse rocks, particularly those containing feldspar. Feldspars are usually crystallized out of the solidifying magma together with other minerals [4]. Kaolinisation

of feldspar may be shown by the following, chemical reaction: The functions of the clays in the ceramic tile are as follows: Feldspar Feldspar is an important and common fluxing material for ceramic bodies as well as glazes and one of the three essential raw materials for the triaxial body. Feldspar provides the glassy phase for the ceramic bodies and they are added to decrease the firing temperature and thus to reduce cost [3]. Feldspars are found in pegmatite rocks usually of the granite type which can be considered as a mixture of feldspar minerals together with quartz and mica [9]. The feldspar mining operation uses the conventional open-mining system whereby the overburden is removed by bulldozer or backhoes followed by drilling and blasting. Crushing is then carried out with a jaw or cone crusher after which screening through different apertures are done such as 5mm or according to market requirement. Magnetic separators are also used to remove contaminants for eg. Figure 3 shows the sampling procedure at a mine. Sampling at a feldspar mine There are three types of feldspar minerals namely Na-Feldspar Please see Figure 4 or albite, the K-Feldspar or orthoclase and Ca-feldspar or anorthite. Pure feldspar does not occur in nature but are intermediate in composition. Therefore sodium feldspar also contains orthoclase and anorthite. Accessory minerals are present as well such as quartz, iron compound and magnesia [10]. Na-Feldspar and quartz image under polarizing microscope transmitted light In the ceramic tile body especially the porcelain tile, feldspars play an important role in achieving the vitreous nature of the body and the high mechanical resistance of the product at the end of the firing stage. Besides acting as a flux, feldspars also facilitate drying and release of gas during firing like other non-plastics. A large amount of silica occurs as free silica that is mostly in the form of quartz although most of it is combined with other elements in the silicate minerals. There are 3 types of silica found in nature that are rock, granular and powdered [3]. Rock type - This type is also known as quartz stone. Due to its impurities content, this type of silica is not commonly used in the ceramic industry. Granular Type - This form of silica is known as silica sand and is the most commonly found. This type of silica is widely used in ceramics because it is rather pure even without beneficiation. The usage is not in ceramics but mainly in thermal insulation. Silica exists in a great variety of forms. The three principal crystalline forms are quartz, tridymite and cristobalite [3,12]. Quartz as compared to the other raw materials in the ceramic bodies is relatively cheap. Silica sand or flint is used in the body as a source of silica. Addition of silica sand decreases its unfired strength and plasticity but assist to facilitate escape of gases during drying and firing. It also reduces drying shrinkage and increases the whiteness of the fired body [10]. The other constituents besides the basic clay, feldspar and silica sand includes a number of minerals that are used for modifications they create within the characteristics of the bodies themselves. The most important component in this group is talc which is used to increase the fusibility. Wollastonite, dolomite, magnesite, nepheline syenite are other minerals that are used to assist the vitrification process of the body. Talc Talc has the chemical composition 3MgO. Talc is formed by the interaction of water with magnesium salts on primary rocks. Use of small amounts of talc with feldspathic fluxes can lead to higher modulus of rupture in the fired product and improved whiteness level [10]. Verlag Schimd GmbH Freiburg i.

Chapter 6 : Clothing material - Wikipedia

The raw materials used in the pharmaceutical industry are categorized into 3 major types. They are: Raw Materials of Excipients Raw Materials of API Raw Materials of Packaging 3.

Equity Research Prep Course Types of Inventory As mentioned above, the three most important types of inventory are the raw materials, the work in progress WIP inventory and the finished goods. So let us first have a basic understanding of the different types of inventory and later we will look at their ways in which they are managed and analyzed. Login details for this Free course will be emailed to you Following are the different types of inventory: Raw materials are the basic materials that a manufacturing company buys from its suppliers and that are used by the former to convert them into the final products by applying a set of manufacturing processes. For example, aluminum scrap is the raw material for a company that produces aluminum ingots. Flour is the raw material for a company that produces bread or pizza. Similarly, metal parts and ingots are the raw materials bought by a company that manufactures cars and crude oil is the raw material for an oil refinery. It is very common and easy to observe that the final products of one company are bought as raw materials for some other company. For instance, many oil drilling companies produce crude oil as their final product. On the other hand, the same crude oil is bought by oil refining companies as raw materials in order to produce their final products i. It is important to optimize the raw material inventory. This is because if a company keeps too much of raw material inventory in stock, it will incur higher carrying costs and there is also the undesirable possibility of the inventory getting obsolete. For example, in pharmaceutical or food industry, the raw materials may be perishable. On the other hand, a company must have a certain minimum level of inventory at all times to cater to the production volumes, which mostly follow the trend of the market demand. Thus, optimization of raw material inventory is important. They are the raw materials that have been taken out of the raw materials store and are now undergoing the process of their conversion into the final products. These are the partly processed raw materials lying on the production floor. And they have also not reached the stage where they have been converted into the final product. The extent of inventory locked-up as work in progress is lower the better. This is understandable as the inventory under process is of no use till it gets converted into the final product. In fact, in lean manufacturing systems, the work in progress inventory is considered as waste. So it is most desirable that the volume of inventory that is lying in the form of work in progress be minimized and the time is taken to convert it into the final also be minimized so that the locked-up value can be released as quickly as possible. The idea is that this capital, which is locked-up in the form of work in progress inventory, can otherwise be invested somewhere else in order to achieve much better returns. Finished goods are indeed the final products obtained after the application of the manufacturing processes on the raw materials and the semi-finished goods discussed above in the article. They are saleable and their sale contributes fully to the revenue from the core operations of the company. Regarding the level of finished goods inventory, there are two types of industries that we need to look at. First, we would take the industries in which the finished goods are mass produced and the sale happens after the production. Examples of such industries are the FMCG industry and the oil industry. For a company in such an industry, the correct approach is to maintain the finished goods inventory in a similar manner as the raw material inventory is maintained i. As we note above, Ford had a supply of only 78 days in February as compared to 97 days of stock in January. The other type of industries is one in which the goods are manufactured on demand i. An example of such industries is the capital goods industry and the customized goods industry. For a company in such an industry, it is neither necessary nor advisable to keep any inventory of finished goods because their finished goods kept ready in stock might never get sold even if they have the slightest deviation from the specifications of the new orders coming from the customers. So they may never get a return on their investment gone in making the finished goods ready. Other types of Inventory: There are two other important types of inventory, namely packing material inventory and MRO maintenance, repair and operating supplies inventory. As the name suggests, the packing inventory is the inventory of the materials that are used by the company to pack the goods. Within this category, there are something called the primary packing inventory

and the secondary packing inventory. For example, the tube of an ointment is its primary packing. For example, the carton used to pack the tube of an ointment is its secondary packing. MRO supplies or simply supplies or consumables are those materials that are consumed in the production processes but do not form a part of the finished goods or form a very small part of the finished goods. They are a type of supporting materials for the production process. The maintenance and repair supplies include the lubricating oil, coolant, bolt, nuts etc. Operating supplies include the stationery and office supplies used by a company. Management of Inventory In our discussion of the types of inventory, we explained that apart from the work in progress inventory, all other types of inventory must be held at optimal levels. And by optimal, we mean neither too high nor too low. For doing so, a company needs to find that level of inventory at which it has to incur the minimum total cost, which is the sum of certain component costs including ordering cost, purchase price and carrying cost etc. Taking these costs and the market demand into consideration, a company can decide an economic order quantity EOQ and create an inventory purchasing plan to ensure that items are available when they are needed while they are not lying in the stores in unnecessary quantities. The two popular and highly practiced strategies for inventory management used in industry are the just-in-time JIT and materials requirement planning MRP. In JIT, the arrangement between the vendors and the company is such that the latter receives the raw materials at near about the same time when it needs them for production. On the other hand, in MRP, the raw material delivery is schedules based on the sales forecast. Financial Analysis of Inventory There are quantitative as well as qualitative techniques that are used by analysts and investors in order to have an understanding of the inventory movement of within a company. The common ratios used to perform the ratio analysis regarding the inventory management of a company are inventory days, inventory turnover and inventory to sales ratio. The first ratio i. This implies that the company holds inventory for an average of If the ratio increases over time and is much higher compared to its peers, this can be a red flag that the company is struggling to clear its inventory. Next, the inventory turnover ratio is equal to the sales achieved by the company over a period divided by the average inventory for that period. Many analysts use COGS instead of sales in for finding the inventory turnover ratio. This approach is more accurate since it does not include the markup charged by to its customers, which is irrelevant in inventory analysis. If this ratio is declining or is low compared to the peers, it gives a negative sign to the investors. The inventory to sales ratio is just the reciprocal of the inventory turnover ratio when sales is used instead of the COGS in the numerator. An increase in this ratio indicates the company is locking up more and more capital in inventory as compared to the revenue that it is generating. Under the qualitative analysis techniques, an analyst reads the notes to financial statements and tries to understand the inventory valuation methods used by the company. There are three different inventory valuation methods that a company can use at its discretion. Depending upon the valuation method used, the COGS as well as the value of the inventories reported on the balance sheet vary. This also affects the financial ratios described above. Due to this, the consistency and justification of the valuation method being used by the company are very important. Otherwise, they will easily lead to the manipulation of reported earnings and will mislead the investors. Therefore, an analyst doing qualitative analysis must have a good eye to catch the inconsistencies or frequent switching from one method to another. Other articles you may like.

Chapter 7 : What raw materials do auto manufacturers use? | Investopedia

The three most important types of inventory are the raw materials, the work in progress (WIP) inventory and the finished goods. Have a look at the Colgate's Inventory breakup for and There are three types of inventory listed - raw material and supplies, work in progress and finished goods.

Wires Types Of Sectional Metals Sectional metals are composed of steel and are available in a variety of standardized shapesâ€”they are most commonly used in the engineering and construction industries. A long steel cross-section beam that resembles the shape of the letter "I. This resembles the shape of the letter "Z," with half a flange protruding in opposite directions. Hollow structural section HSS: HSS consists of hollow piping and is available in a variety of standard shapes: HSS-shapes can also be angled, channeled, T-shaped or asymmetrical. A rod is a long piece of metal that is circular or square; rebar is one example of rod sectional metal. Flat Metal Raw Materials Flat metal is metal that has been pressed or rolled into very thin, flat pieces. The thickness of a particular piece of sheet metal can vary greatly, from less than a millimeter to several centimeters, and is measured in gauges. Flat metal raw materials can be broken into three general categories: Foil or leaf metal: This is the thinnest type of flat metal Sheet metal: Sheet metal is the most common type of flat metal, with typical thicknesses less than 6mm in size Plate metal: Flat metal that is thicker than 0. These raw materials are used to aid the welding process and are melted to help bond two or more pieces of metal together. Welding wire is available in a variety of thicknesses and metal types, allowing for customization in the welding process. Benefits of Using Basic Raw Materials for Metal Fabrication The usefulness of standardized raw materials for the numerous metal fabrication processes is immediately apparent. Having uniform shapes and sizes of raw materials reduces the amount of metal fabrication necessary to create a product and dramatically decreases production times. The result is a lower cost per piece fabricated. The fact that different suppliers are required by the ASTM to use raw materials that are standardized across a narrow spectrum also serves to create compatibility and uniformity throughout an industry. Furthermore, it serves to ensure quality and structural integrity in metal fabrication processes. Metal fabricators have numerous standard raw materials at their disposal that can reduce cycle times and workflow. This guide discusses the various types of raw materials that are typically used in metal fabrication. Metal fabrication is the creation of metal parts, machinery, or components through forming, cutting, and other like processes. Common fabrication techniques include welding, lathing, broaching, grinding, milling and honing, though many metal fabrication shops offer a variety of specialties that may be well-suited to your specific needs. Over the years, the use of popular raw materials has resulted in the standardization of many fabrication parts and components. Before beginning a metal fabrication process, it is helpful to understand which materials are available and appropriate for our unique application. The following types of raw materials should be readily available from a wide variety of metal suppliers:

Chapter 8 : The Basic Raw Materials Involved With Metal Fabrication

Selecting raw materials for any fabrication process or product testing is an important process. Selecting from an industrial supplier is probably your best option.

What raw materials do auto manufacturers use? Maverick Updated December 11, â€" 4: First, raw materials are mined or otherwise extracted from the earth. Next, a raw material production company turns the raw materials into materials auto manufacturers can use in the production of automobiles. Those materials are then sold either directly to auto manufacturers or to auto parts suppliers. Beyond the big basic building blocks such as engines and transmissions, there are the interior parts such as instrument panels, seats and HVAC systems, along with all the necessary wiring to tie them together. Over the years, the materials used to build these various component parts have changed somewhat, but the overall bulk of what goes into automotive manufacturing has remained largely the same. Steel is often used in the manufacture of mufflers and exhaust pipes as well. Technological advances over the years have enabled auto manufacturers to utilize different types of steel that have varying levels of rigidity. Plastics Oil and gas are the raw material source of the many plastic components in cars. Chemical companies are the industry that transforms petroleum byproducts into plastic. Plastics are the challenger to steel for prominence in auto manufacturing. Among the countless car parts made from plastic are door handles, air vents, the dashboard and airbags. The versatility, durability and lightweight character of plastics make them an ideal material for various parts. Aluminum Aluminum, primarily because of its malleability and lightweight nature, is being increasingly used in car manufacturing. Wheels are commonly made of aluminum, and it has replaced steel and iron in the construction of many critical auto parts, such as engine blocks. Rubber Rubber is essential for cars, and the auto industry is essential to the rubber industry. Tires are one of the most important parts of a car. Like plastic, rubber is durable and easily molded into different shapes. From metals to fibers to sand and quartz used to make glass, automobile manufacturing uses possibly more raw materials than virtually any other production industry. Since it first developed the assembly line process, the auto industry has always been a leader in innovations in mass production , and its adaptive use of raw materials is an important factor in its success as an industry.

Chapter 9 : What Are the Different Types of Industrial Raw Materials?

calendrierdelascience.com most widely used raw materials in the manufacture of cosmetics. WATER IS USED AS A SOLVENT FOR MANY INGREDIENTS OF COSMETICS. WATER CONTAINS INORGANIC IONS LIKE CALCIUM,MAGNESIUM,SODIUM,POTASSIUM, BICARBONATE,SULPHATE,CHLORIDE,SILICATES,ETC.

Adorable animal families that will make you "aww" The term raw materials is sometimes used to describe only those materials that are found in nature, but in reality, industrial raw materials are any kind of basic material used by any industry to produce a product or service. This is an extremely broad category, and while entire books could be written on each of the various raw materials used by industries around the world, it is possible to roughly group them together by type and to give a few specific examples of some of the most common. The most basic division is into consumables, such as industry specific fuels and water, and materials that are converted into other products, like ores, timber , and crops. Supplies, or consumables, are one category of industrial raw materials. All industry requires power of some kind to run its machines and factories, but some industries use specific types of power as they are more suitable to their purposes than others. Coal , natural gas, electricity, and in some cases, even firewood fall into this category. Steel industries, for example, use a great deal of coal for their furnaces, and some industries, like small pottery producers, consume wood in their kilns. Wood is used as a fuel by many restaurants, distillers, and by charcoal makers, for whom wood is not only a consumable but a raw material that is converted into a product. Ad The other broad category of industrial raw materials also includes those materials that are converted or manufactured into products or services. Raw materials in this group fall into several subcategories. Ores, minerals , and other mined materials make up a large portion of all industrial raw materials, many of which are further refined into materials, like steel, copper , kaolin clay, and phosphate rock, that are used by other industries. Some of these products can also be classified as consumables, like coal, raw crude oil, and the uranium that is used as fuel in nuclear reactors. Ores and minerals are an extremely varied group, and some examples of minerals include silica, which is used in the making of glass, aggregates used in making concrete, rock salt, and chalk. Ores of metals like lead, tin , copper, iron, and others are mined and consumed by industry in amounts that total millions of tons worldwide each year. Organic natural resources are another group of materials that are converted into products or services. Timber, animals harvested for food and other products, and crops cultivated for food, textiles, and other products fall into this category. Millions of trees are felled each year for lumber for building, paper, and fuel. Some trees are used as a source of crops, some of which are used for food, such as tree nuts and tree fruits. Others, like rubber trees, produce raw materials, which produce raw latex, which is used in hundreds of types of rubber and other products. Fish, and animals that are trapped or raised for fur and food also fall into this group. Many animal by-products, from both terrestrial and aquatic animals are used as raw materials by other industries, including the red pigment, cochineal, which is derived from a type of insect. Animal by-products are found in a large number of products, such as shellac and gelatin , which used in some foods and by many other industries. The swim bladders of certain species of fish are used to clarify beer. Another type of industrial raw materials are those materials that are man-made, all of which are converted or manufactured in some way from naturally occurring materials. Every man-made product is the result of other products or materials that, at some level, originated from natural resources. Many industries exist only to convert certain raw materials into other raw materials to be used by other industries. An example of this are cloth manufacturers, who take materials like cotton , linen, and man-made fibers like nylon or polyester , and convert them to bulk cloth to be used by clothing manufacturers. Another would be the steel industry which uses raw iron ore to produce steel, which is then used by hundreds of other industries to produce their products.