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I will be presenting you about Copper as product types, usage areas, substitution, usage by end sector, copper prices etc. I also would like to inform you that I will be mentioning our country name as Türkiye instead of Turkey. Before this I would like to give you brief summary of my company.

Er-Bakir is located in Denizli in the South West of the Anatolian region of Türkiye. The city of Denizli is famous for Pamukkale which is one of the eight wonders of the world. The company was founded in 1981 by Mr. Ahmet Nuri Erikoğlu who has been involved in the copper business since 1950. The first electrolysis tank house in Türkiye was founded by his Family with an annual capacity of just 1000 metric tons.

The first production in Denizli started in 1985 and in the same year the company merged with Mr. Cafer Sadık Abalıoğlu. Since that time Er-Bakir has been a subsidiary of Ahmet Nuri Erikoğlu Holding and Cafer Sadık Abalıoğlu Holding.

Er-Bakır started to produce cathodes with an annual capacity of 16.000 metric tons and wire rod production on a Properzi line at 7 tons per hour which is about 45.000 metric tons per year. Annual rod production and sales were 2000 tons in 1985, and reached 120.000 tons in 2009. In 1999, to meet market demand, Er-Bakir invested in a new Contirod line which increased total capacity to 155,000 tons.

Since the Properzi line was old we decided to sell it in 2001 and at the end of 2007 we made an agreement to increase the Contirod Line capacity from 18 to 30 tons per hour. By the second half of 2009 our wire rod capacity reached 200.000 tons per year.

As a strategic decision we decided to produce more value added products. For this reason we installed our first rod break down machine in 1986 and since then we have invested continuously especially for American and European markets with;

- Rod Break down machine,
- Intermediate and fine wire drawing machines,
- Multi wire machines,
- Single and double twist bunching and stranding machines,
- Rigid stranders,
- Planetary stranders,
- Tin and Nickel plating lines.

Depending on product mix our wire production capacity is around 100.000 tons and with this production capability we can produce single wires from 0,05 mm up to 4,00 mm

diameter, Multi wires from 0,05 mm up to 1,15 mm diameter with 12, 16, 21 and 24 ends wire machines and bunched and stranded products from 0,06 mm² up to 240 mm².

Our site is 170,000 m² in area. Our 495 employees work in 60,000 m² of buildings according to the following management systems:

- ISO 9001,
- ISO/TS 16949,
- ISO 14001,
- OHSAS 18001,

In 2000 Management committed to using the EFQM excellence model as a management system for sustainable value to stakeholders. As a result, our company was awarded the Aegean region Quality Grand award in 2005. In 2007 Er-Bakır received an award as the 5th best employer in the Hewitt Best Employers Study, selected from hundreds of applicants.

Every year the Istanbul Chamber of Industry publishes a list of the 500 largest companies in Türkiye. Er-Bakır was listed for the first time in 1989 at 116th. By 2008 we had moved up to 31th place with a turnover of 1 billion USD.

After this brief summary of our company, I would like to cover the following topics;

1- Importance of copper in human life - general

2 *Overview on Copper Fabricating Industry Processes , Shapes and Products*

3 *Substitution: Copper vs. its Competitors*

4 *Copper and Sustainable Development*

5 *Usage by End-Use Sector and Region, 2008*

6 *Cable and Magnet wire exports from TÜRKİYE*

7 *Copper prices and effects on producers*

I will start with the importance of copper in our life.

IMPORTANCE OF COPPER IN HUMAN LIFE - GENERAL:

Copper has been in use for at least 10,000 years. Chemical, physical and aesthetic properties of copper make it a material of choice in wide range applications from the dawn of civilization until today.

Ductility, resistance to corrosion, malleability and conducting of heat and electricity properties of it is rise out the importance. Wide range of application is possible due to making alloys with various metals such as; zinc, aluminum, tin or nickel.

For instance, copper is used for:

- conducting electricity and heat,
- communications,
- transporting water and gas,
- roofing, gutters and downspouts,
- protecting plants and crops, and as a feed supplement and
- making statues and other forms of art.

In addition, in areas known to be copper deficient, copper is used by farmers to supplement livestock and crop feed.

Now, I will give you some information about *copper fabricating industry processes, shapes and products*;

Copper is shipped to fabricators mainly as ;

- cathode
- wire rod
- billet
- cake (slab)
- ingot

Processes used to form a wide variety of shapes and products of the highest quality and consistency are as follows;

- extrusion
- drawing
- rolling
- forging
- melting
- electrolysis
- atomization

Typical products obtained by this processes are;

- wire
- rod
- tube
- sheet
- plate
- strip
- castings
- powder
- other shapes

These copper and copper alloyed products are then shipped for final manufacturing, or distribution, to meet society's needs such as;

- Cables
- Motors
- Connectors
- Wiring
- Sprinklers
- Heat exchangers
- Taps
- Radiators

- Fittings
- Electronic hardware
- Circuit boards
- Roofing
- Coins
- Gears
- Valves etc.

Substitution: Copper vs. its Competitors:

In different applications, copper and other metals, alloys and other products can serve as substitutes for each other for certain uses.

Increased attention has been paid to the issue of substitution due to the relatively high volatility of copper prices over the last several years.

An overview of copper products and its competitors are given in this slide according to major end use provided.

As you can see on the table:

Copper-bearing product	Competing material/product	Estimated global market size tons
Electrical wire and cable uses		
Telecom wire (last mile)	Wireless technology, optical fiber	800.000
Automotive wire/harness	Aluminum wire, optical fiber	700.000
Transformer winding wire	Aluminum wire	2.000.000
Motor winding wire in household appliances		
Building construction		
Building wire	Aluminum wire	1.400.000
Roofing and guttering	Zinc sheet, aluminum sheet, composite copper sheet	500.000
Plumbing tube	Composite copper tube, plastic tube, stainless steel	1.000.000
Boilers	Stainless steel	200.000
ACR Tube (external tubes)	Aluminum tube	700.000
Other Uses		

Brass rod for machining (valves, fasteners, fittings)	Miniaturization, lower copper alloys	1.800.000
Copper alloy sheet/strip for connectors, lead frames, buttons, decoration, furniture	Lower copper alloys, plated materials, steel, aluminum, plastic	1.200.000

Copper and Sustainable Development:

The demand for copper will continue in future by taking advantage of the renewable nature of copper through reuse and recycling.

As well, competition between materials, and supply and demand principles, contribute to ensuring that materials are used efficiently and effectively.

Copper is an important contributor to the national economies of mature, newly developed and developing countries.

Mining, processing, recycling and the transformation of metal into a multitude of products creates jobs and generates wealth.

These activities contribute to building and maintaining a country's infrastructure, and create trade and investment opportunities.

This is particularly important for lesser developed countries seeking to improve their living standards.

As you can see from the table;

- 48,5 % of the production of copper is consumed by the Asia region and 29 % of total is consumed by China itself in 2008.
- 28,8% of the production is consumed by the USA while the rest consumed by Europe.
- The expected industrial consumption by China will be much more in near future.

In this slide, usage by end-use sector of building construction, infrastructure and equipment manufacture and distribution of them is given.

As you can see from the table,

55% of the total refined copper usage consumed by Asia ex Asian /CIS region.

12 % increase was obtained in usage by Asia ex Asian/CIS region in 2009 according to 2008, where it was decreased by 1.6% in total consumption at the same period.

The intensity of use for a material relates the demand (consumption) of that material to economic activity (gross domestic product, or GDP).

More developed regions of the world benefit from a well established infrastructure, to which copper is an important contributor.

As less developed regions expand their infrastructure, copper and other materials form the building blocks needed to increase living standards.

According to the preliminary ICSG data, including revisions to data previously presented, the refined copper market balance for the full year 2009 indicated a market surplus of about 365,000 metric tones (t), an increase of about 140,000 t from the surplus in 2008. A deficit of about 140,000 t in the first half of the year, which resulted from high Chinese apparent usage and reduced world refined production, was more than offset by a surplus of around 500,000 t in the second half of the year. The second half surplus

resulted primarily from the recovery of world refined production (+7% 1st half) and a coincident decline in Chinese apparent demand (-5.5% 1st half).

In 2009, world copper usage remained unchanged from that in 2008 at 18 Million tones (Mt). Chinese apparent usage, which accounted for 40% of world usage in 2009 grew by almost 2Mt (38%) and offset a 16% decline in the rest of the world.* Usage in the EU-15 countries, Japan, and the United States, which combined accounted for about 29% of world usage, decreased by 20%, 26% and 19%, respectively. On a regional basis, usage increased in Africa by 1.7% and Asia (incl. China) by 17%, but decreased in the Americas, Europe, and Oceania by 18%, 21% and 13% respectively.

As you can see from the table of Copper Wire & Cable Consumption by Product; Winding wire consumption rate is decreased by 3.1% in 2008 according to 2007 and 10.9% in 2009 according to 2008. Also with the starting of global crisis, consumption is decreased continuously in each quarter from the beginning of 2008 till second quarter of 2009, but it was still below that of 2008.

The world recession, as much as Türkiye, in 2001 forced cable and magnet wire producers tends to make investments to increase their capacities.

As it can be seen on the table;

- Total export from Türkiye to EU and non EU countries is 1,4 billion USD in 2009 though global recession .
- Total export amount (USD) was decreased by 2 % in 2009 according to 2007.

This was mainly come from decreasing of average LME value by 28 % in 2009 according to 2007 figures.

As it can be seen from table, export amount in weight basis increased by 19% in 2009 according to 2008 figures though global recession effects perceived.

Increasing the effects of global crisis 2009 caused to %10 decreases in exportation according to 2008 figures.

While magnet wire exportation from the Türkiye was increased by 40% in yearly basis between 2004 and 2008; it was decreased by 25% in 2009 according to 2008 figures.

Last topic is about the Copper prices:

Copper, as any other good, is traded between producers and consumers.

Producers sell their present or future production to clients, who transform the metal into shapes or alloys, so that downstream fabricators can transform these into different end-use products.

One of the most important factors in trading a commodity such as copper is the settlement price for the present day (spot price) or for future days.

The role of a commodity exchange is to facilitate and make transparent the process of settling prices

Exchanges also provide for the trading of futures and options contracts.

These allow producers and consumers to fix a price in the future, thus providing a hedge against price variations.

In this process the participation of speculators, who are ready to buy the risk of price variation in exchange for monetary reward, gives liquidity to the market.

A futures or options contract defines the quality of the product, the size of the lot, delivery dates, delivery warehouses and other aspects related to the trading process. Contracts are unique for each exchange.

The existence of futures contracts also allows producers and their clients to agree on different price settling schemes to accommodate different interests.

Exchanges also provide for warehousing facilities that enable market participants to make or take physical delivery of copper in accordance with each exchange's criteria.

- As a consequence of big variances in copper prices;
- Producers are exposed to greater risks created by the high volatility of copper prices.
- Higher copper prices squeeze the operating margins,
- Producers are face with much higher working capital requirements and needs to open much higher credit risk today customer's.

CONCLUSION:

The unique combination of properties offered by copper and copper alloys such as;

- conductivity,
- longevity,
- malleability,
- strength,
- corrosion resistance,
- and aesthetic appeal,

makes the material of choice in a vast range of uses.

For these reasons industry looks forward to steady growth in the more mature economies and to increasingly exciting prospects in those which are emerging.

Thank you for your attention.