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ANALYSIS OF MECHANICAL PROPERTIES OF COPPER PIPES USED IN COOLING SYSTEMS

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This article aims to define the mechanical properties of copper, based on a mechanical test of traction. After the study, the main characteristics of the material could be defined as well as their application in air conditioning coils. To make this possible be consolidated, there was a tensile test according to ASTM A370, the laboratory facilities of the University Redeemer Society. From the results obtained and subsequently verified through mathematical calculations, we conclude several characteristics that the material shows when asked to determined efforts. It is a range of good physical, chemical and mechanical properties, which determine the copper as an extremely versatile material and a very wide applicability in cooling ducts. Copper is very important in scientific and technological progress of mankind. Their participation in resource conservation, waste reduction, energy efficiency, reduction of the effects on climate change, recycling and increasing the life cycles of various products makes this metal a key part in the economic development of humanity. With the results obtained it was concluded that copper is the fact element most suitable for use in air conditioning serpentine pipes.