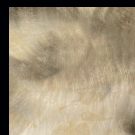
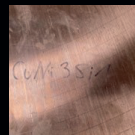


NOCRYSTALLINE AND AMORPHOUS MATERIALS FOR SHAPED CHARGE LINERS USED IN MINING INDUSTRY

The main goal of the project is the development of new materials with a highly fragmented structure intended for the production of liners used in the mining industry, including in shaped charges intended for drilling blast holes. High refining of the structure allows a high level of mechanical properties to be achieved while maintaining high ductility, which is particularly desirable in the case of materials used for the shaped charges, because it guarantees obtaining a long, continuous cumulative jet with high penetration properties.

CONSORTIUM

- Łukasiewicz Research Network – Institute of Non-Ferrous Metals
- Łukasiewicz Research Network – Institute for Ferrous Metallurgy
- Central Mining Institute
- Military University of Technology
- Military Institute of Armament Technology
- Chemical Works „NITRO-CHEM” S.A.





Shaped charges with this type of liners have been proposed to be used in the mining industry to make blast holes during rock mining, which is the main goal of the project. In the course of the project models of liners for a variety of applications, including the drilling of blasting holes, or the drilling of holes in the construction of vertical shafts or horizontal tunnels are being manufactured. The materials that are being developed within the project have a very high level of dynamic mechanical properties, which creates the possibility of using them also in other sectors of the economy, including, among others, the automotive or aerospace industries, where the ability to carry dynamic/impact loads is required.

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