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A MODULE

Introduction to the problems of welding

Slag



Slag

- Slag melt is non-metallic compounds (oxides, acidic, basic and amphoteric, and sulfides) which may be free or in the melt as a complex compound.
- Usually the metals dissolve in the slag.
- Properties slag and slag nature of the interactions with the metal depends on its chemical composition.
- Chemical composition of the slag influences the most important physical properties such as melting point, viscosity, electrical conductivity, surface tension, density.
- Chemical interaction between slag and metal are determined by proportion of basic, acid and amphoteric oxides.



The most important components of slag are:

- Acidic oxides SiO_2 , P_2O_5 , TiO_2 .
- Basic oxides CaO , MgO , FeO , MnO , CrO , NiO , On_2O , K_2O , et al.,
- Amphoteric oxides of Al_2O_3 , B_2O_3 , Cr_2O_3 .



The most important components of slag are:

- Slag must be composed of many oxides or other metallic compounds, properly served its purpose.