

LEAK TIGHTNES OF HARDENING SLURRIES WITH FLUIDAL ASHES IN CHEMICALLY AGGRESIVE ENVIRONMENTS

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Abstract: This article presents test results for hydraulic conductivity and porosity structure of hardening slurries prepared of Portland cement, betonite, water and fluidal ashes from the combustion of hard and brown coal. The slurries were exposed to persistent filtering action (180 days) of liquids chemically aggressive to cement binders, i.e. distilled water, 0.5% solution of nitric acid, 1% solution of sodium sulphate, 1% solution of magnesium nitrate and 1% solution of ammonium nitrate. Samples exposed to filtration of tap water constituted the reference base. The research was into relations between hydraulic conductivity and pore structure parameters in slurries, as well as into the influence of the type of aggressive medium on leak tightness of slurries (their porosity and hydraulic conductivity).