



SUBJECT DATASHEET

Semester:	2009/10/2
Subject:	Silicate Chemistry II.
Code:	VEMKSIB234K
Responsible department:	Institute of Materials Engineering
Responsible department code:	MKSI
Responsible lecturer:	dr. Margit Eniszné Bódogh

Educational objectives:

Application of the previously attained theoretical knowledge in the practice

Detailed content of the subject:

Testing of plasticity and Macey's drying sensitivity of raw materials
Chemical analyses of raw materials
Investigation of phase composition of ceramic raw materials and fired bodies by X-ray diffraction and derivatograph
Particle size distribution analyses of materials
Investigation of physical properties (bulk density, porosity, compressive and bending strength) of dried and fired bodies
Investigation of morphology by electron microscope
Investigation of drying kinetics of ceramic materials
Rheological investigations
Determination of the optimum electrolyte content of casting slip
Qualification of gypsum binder materials
Measurement of specific surface, setting time and volume stability of cements
Measurement of heat conductivity
Measurement of thermal expansion of glasses
Color measurement of glazes, coloring materials and enamels
Preparing of concrete specimens and measuring of their strength

Requirements:

Compulsory attendance - making reports of each experiment, passing final test with a score of 2 or above

Required and suggested references:

Tamás F.: Szilikátipari laboratóriumi vizsgálatok, Műszaki Könyvkiadó, Bp. 1970
Tamás F.: Szilikátipari kézikönyv, Műszaki Könyvkiadó, Bp. 1982
Riesz L.: Cement és mészgártási kézikönyv, Műszaki Könyvkiadó, Bp. 1989
Knapp O., Korányi Gy.: Üvegipari kézikönyv, Műszaki Könyvkiadó, Bp. 1964
Somodi Zs., Pálffi A., Kámori L.: Finomkerámiaipari kézikönyv, Műszaki Könyvkiadó, Bp. 1984