



Procedures for preparing masses, creating by casting, preparing of dough

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Procedures for casting slurry:

Into the mixing device add water and corresponding dispersing agent according to the type of mass (see table below). During stirring slowly pour dry mixture of relevant mass. The minimum period of intensive blunging is 2 hours. Time of leaving slurry to mature before processing is minimally 1 day. After blunging and mature is necessary to strain the slurry over dense sieve (preferably vibration sieve) with mesh size 0,2 - 0,4 mm. You can use deflocculant on slurry if needed - water glass and preparation AXILAT 32A for basic versions of masses (LUS, LUD, LVK/K) or water glass for plastic version of mass (LUS/PL). Deflocculation is performing usually with centesimal addition of deflocculant agent. Degree of deflocculation can be best measured with divided viscosimeter by so called "viskol test". The basic version of mass should be deflocculated to optimum, plastic version to light pseudo-plastic state. We recommend diluting slurry to the appropriate fluidity. For creating is always suitable thin slurry mass. By diluting decreases litre weight insignificantly.

Slurry preparation: (data for 100 kg of dry mass and water hardness 10° n)		LVK/K	LUD	LUS	LUS/PL
Water addition	l	43	45	45	47
Soda ash	kg	0,17	0,07	0,07	0,24
Sodium water glass	kg	0,17	0,11	0,06	0,48
AXILAT 32A	kg	0,34	0,17	0,13	-

Creating by casting:

Casting into plaster mold is made after stirring and short spend standing. Body formation for small utility ceramics in base version of masses is circa 0,5 hour, removing of the cast is possible after 2 - 3 hours. In plastic version of mass is body formation created 1 – 1,5 hour, removing of the cast is possible after 2 - 3 hours. Shaping times should be tested in condition of workshop in accordance with local mold, temperature and density of slurry. Plastic version creates softer and slowly hardening body formation, that allows rich retouching (carving, pricking, etc.).

In warm workshops with temperature up to 30° C is recommended to treat the slurry by using agent against fermentation. Suitable is for example agent called ACTICIDE DQ from company Biotech Paskov. Suggested addition of dilute commercial agent is circa 0,1 – 0,2 % on dry basis of mass. This agent is an organic basis and harmless. It is added to the final prepared slurry. This treatment prevents the formation of pinholes on the surface of product.

Procedure for preparing of plastic dough (THA, THS):

Into the mixing device add circa 100% of water on dry basis of mass. During stirring slowly pour dry mixture of relevant mass. After blunging and leaving to mature until next day is possible to strain slurry over the sieve with mesh size up to 0,4 mm. Afterwards you can continue with filter press and extrusion on vacuum extruder.