

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

entitled: PROCESS FOR THE PREPARATION OF OPTIONALLY
ALKOXYLATED POLYORGANOSILOXANE RESIN BY NON-
HYDROLYTIC CONDENSATION

in the names of: Inventors :

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ABSTRACT OF THE DISCLOSURE

The present invention relates to the synthesis of optionally alkoxyated polyorganosiloxane (POS) resins by non-hydrolytic condensation. The object is to provide a process which offers the possibility of controlling the crosslinking. This object, *inter alia*, is achieved by the process according to the invention, which makes provision for carrying out a non-hydrolytic condensation reaction between alkoxysilyl units (Mo1) and halogenosilyl units (Mo2), both of which are carried by identical or different silanes, in the presence of a catalyst of the Lewis acid type, said condensation reaction generating essentially =Si-O-Si= linkages and coproducts XR (X = halogen). In this process, the target POS comprise siloxy units D, T and/or Q, or perhaps M, the catalyst is selected from metal compounds or mixtures thereof based on at least one metal belonging to group IIIB, IVB or VB of the periodic table, and the reaction temperature and the initial ratio OR/X are adjusted so that condensation

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takes place substantially exclusively between the units Mo1 and Mo2, with extreme minimization of secondary condensation between two alkoxy units OR to give the by-product R_2O .