Today, Self-Compacting Concrete (SCC) due to high flow properties has been widely used in the construction of building elements, congested reinforcement and narrow cross-section. Generally, during the placement and curing process from fresh concretes is expected to retain properties of design and production. In this study, according to two mixer types (horizontal and vertical axis), changes of fresh (slump, slump flow) and hardened properties (compressive strength) of SCC, produced at three different cement dosage (350, 400 and 450 kg/m3), are examined at four different times (at the 5th, 35th, 65th and 95th minutes after the mixing period) and fuzzy logic model is developed. At the same time, samples taken from mixtures and molded at these times. It was examined that properties of concrete such as compressive strength, slump and slump flow as depend on molding time. The developed model are used mixer type-cement dosage and time as input parameters, slump-slump flow and compressive strength as output parameters. The developed model results with the experimental results is compared, it was obtained the high determination coefficient (R²= 0.9861 for slump; R²= 0.9931 for slump flow and R²= 0.9953 for compressive strength). According to determination coefficient, developed model can widely used for forecast of fresh and hardened properties depend on time of SCC.