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Mass production of the large-sized nuclear plate for J-PARC E07 HIROKI ITO, KAZUMA NAKAZAMA, KAORU HOSHINO, JYUNYA YOSHIDA, KHIN THAN TINT, MYINT KYAW SOE, SHINJI KINBARA, AKIHIRO MISHINA, YOKO ENDO, HIDETAKA KOBAYASHI, Gifu University, J-PARC E07 COLLABORATION — In J-PARC E07, about 10^2 double lambda hypernuclei will be detected, which is 10 times or more than that of the KEK PS-E373 experiment. Therefore, it is necessary for large-scale emulsion plates to avoid time-consuming job for exchange emulsion stack in beam exposure. We also use huge amount of emulsion gel with weight of 2.1 t, which is about 3 times' quantity used for E373. Nuclear emulsion plate is made of photographic emulsion gel as a dry film. Melted gel in 40°C is poured on a thin polystyrene film in the size of 710 $\times$ 700 mm^2. These sheets were dried slowly for two days in drying cabinet under 28°C and RH. 75%. After drying, the surface was coated by thin gelatin layer with 0.3 μm thickness. Regarding the 2nd face, it was poured and coated in the same manner. Finally we dry it well under 25°C and RH. 60% and cut into four 350 $\times$ 345 mm^2 plates. We evaluated the performance about these plates. The length of upper, lower, right-hand and left-hand side are 345.08 $\pm$ 0.05 mm, 345.23 $\pm$ 0.13 mm, 350.03 $\pm$ 0.04 mm, and 350.80 $\pm$ 0.05 mm, respectively. The density is 3.676 $\pm$ 0.032 g/cm^3, enough quality for the experiment.

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