

FLEXURAL STRENGTH OF PREFABRICATED CONCRETE FLOOR PANELS QUALITY $f'c$ 30 Mpa

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ABSTRACT

This precast concrete floor panel is a substitute for wood planks as flooring. Floor panels are printed in sheet form, processed properly to make concrete floor panels have the same strength as conventional cast concrete.

The specifications in the implementation of this test refer to the General Bina Marga 2012 specifications. Before the sample is made, the fine aggregate is tested first, the coarse aggregate is carried out as a preliminary test to determine the feasibility of the material, the concrete mix design plan uses the precast method, the wiremesh wire is used with a diameter of 1 .55 mm with reinforcement spacing 13 cm wide and 9.5 cm long, panel-shaped specimens measuring 120 cm long, 30 cm wide and having a thickness variation of 4 cm and 6 cm, each of which is 4 pieces.

The results of laboratory testing showed that the flexural strength of precast concrete panels aged 7 days thick 4 cm concrete slab sample 1: 15,31 N.mm, concrete slab sample 2: 10,93 N.mm. On the flexural strength of precast concrete panels aged 7 days with a thickness of 6 cm, concrete slab sample 1: 5,83 N.mm, concrete slab sample 2: 4,37 N.mm. Meanwhile, the flexural strength of precast concrete panels aged 28 days is 4 cm thick, concrete slab sample 3: 10.93 N.mm. concrete slab sample 4: 13,12 N.mm. At the flexural strength of precast concrete panels aged 28 days with a thickness of 6 cm concrete plate sample 3: 6,8 N.mm concrete plate sample 4: 9.72 N.mm.

Keywords: *Flexural Strength, Panel plate, Precast.*