

THE STUDY OF PVA REINFORCED EXTRUSION PRODUCTS

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Abstract.

In 1960-70, the demand for wall panels, such as sidings and curtain walls, increased with the spread of dry wall method. In 1970, a Japanese manufacture had developed extruded cement products based on the technology of extrusion for clay tile. The process of extruded cement products is fundamentally different from Hatschek process in that the former is based on screw extrusion.

Extruded cement products have unique features, for example, 3D and hollow design, heat/sound insulation and so on. These features could potentially allow extruded cement products to be adaptable to a wide range of application uses.

However, in fact, the application of extruded cement products is limited to certain fields due to lack of bending strength of the products. The conventional extruded cement products are based on Autoclaved curing, so the products can only achieve low bending strength. In this study, we show the solution to the problem of the conventional extruded cement products by introducing Kuralon™ (PVA fiber) reinforced extruded cement products by natural curing. The products can achieve high bending strength by using Kuralon™ and enable to explore various application uses.