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PHP泥浆在桥梁超长超大直径钻孔灌注桩施工中的应用

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摘要　PHP(partially hydrolyzed polyacrylamide)泥浆是一个特别适合于超长超大直径钻孔灌注桩施工的泥浆系统。制作原料、制作过程、循环系统及施工控制等是决定其经济性、高效性的关键因素。苏通大桥工艺试桩工程根据工程场区独特的地质、水文条件确定了适合该工程的PHP泥浆循环系统，以实践证明采用该系统可以实现桩侧泥皮厚度小于1 mm、桩底沉渣厚度为0 cm。

关键词　桥梁工程；PHP泥浆；苏通大桥；钻孔灌注桩；泥皮；桩底沉渣

分类号

APPLICATION OF PHP SLURRY TO DRILLING OF OVERLENGTH AND EXTRA-LARGE-DIAMETER BORED PILES

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Abstract

PHP (partially hydrolyzed polyacrylamide) slurry is especially suitable for the drilling of overlength and extra-large-diameter bored piles. Its economical efficiency and construction efficiency are dependent on the following key factors：manufacturing of raw materials，manufacturing process，cycling system and construction control. According to geological and hydrologic conditions of the site of Su-Tong Bridge，the testing pile project has adopted PHP slurry cycling system，which has been proved in the practice to have achieved thickness of mud cake around piles less than 1 mm and thickness of sediments at pile tip of zero.

Key words bridge engineering；PHP(partially hydrolyzed polyacrylamide) slurry；Su-Tong Bridge；bored pile；mud cake；sediment at pile tip

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