中国有色金属学报
中国有色金属学报(英文版)
中国科学技术协会 主管
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论文摘要

中国有色金属学报
ZHONGGUO YOUSEJINSHUXUEBAO XUEBAO
第9卷 第1期 (总第30期) 1999年03月

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文章编号：1004-0609(1999)01-0180-05

粘土固化浆液无侧限抗压强度增长规律及其影响因素

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摘 要： 研究了粘土固化浆液结石体无侧限抗压强度q_u的增长规律及其影响因素， 得出以下结论： 粘土固化浆液无侧限抗压强度随时间的增加而增长， 其初期强度增长较快， 后期强度增长较慢； 增加水泥的加量将提高浆液的q_u值， 固化剂A的加量有一最佳值(3%左右)； 因固化剂B是作为加快水泥水化反应速度的催化剂而加入的， 所以， 固化剂B的加量以控制在5%以下为好。 此外， 还简单分析了粘土固化浆液结石体无侧限抗压强度与塑性强度存在差异的原因。

关键字： 粘土固化浆液 无侧限抗压强度 塑性强度

GROWING RULE AND AFFECTING FACTORS OF UNCONFINED COMPRESSIVE STRENGTH OF CLAY-HARDENING GROUTS

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Abstract: The strength of grouts is a very important performance parameter during grouting. The affecting factors and growing rule of unconfined compressive strength of clay-hardening Grouts (CHG) were studied. The results showed that the unconfined compressive strength of CHG increases with the increasing of time; the early strength increases quickly, and the late strength increases slowly; increasing cement amount will increase the strength of CHG; the best amount of solidified agent (SA) A is 3%, the amount of SA B should be controlled under 5% because SA B is added into CHG as a catalyst increasing action rate of cement hydration. And then the reason that causes the difference between unconfined compressive strength and plastic strength of CHG was simply analyzed.

Key words: clay-hardening grouts (CHG) unconfined compressive strength plastic strength