

辐射交联聚乙烯发泡卷材生产工艺技术关键

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辐射交联聚乙烯发泡材料是一种新的高科技产品。它以其特殊的闭孔结构、光滑细致的外表、优异的综合性能(质轻、无毒、无味、吸水性极低、导热系数很小、耐老化、耐化学腐蚀,可以用粘、机加工、热成型等方法进行二次加工等)而被广泛地应用于建筑、热力工业、车船制造、特种包装、农业渔业、文体娱乐及其它方面。本文介绍了辐射交联聚乙烯发泡材料生产工艺流程,对其中的配方、辐照工艺、发泡炉的设计等关键技术进行了工艺技术的特点分析,并与国外同类技术进行了比较,对发泡炉结构、原理作了介绍,对该产品在我国的研究与实际应用状况及其发展前景进行了分析。

关键词 辐射交联, 发泡材料, 工艺技术

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The key processing technology of radiation crosslinked foamed PE roll material

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Radiation crosslinked polyethylene foamed roll material is a new type of hi-tech product which has perfect close cell structure, smooth surface, good bounce, high mechanical strength, good heat resistance, waterproof, age defying and chemical corrosion resistance. The products can be re-processed by combination, connection and cutting for a wide range of application such as construction, thermodynamics industry, vehicle and ship manufacture, special packaging, agriculture and fishing, recreation and sports. The article introduces technological process of the irradiation crosslinked polyethylene foam, Emphases are made mainly on characteristics of key technology including the formula, radiation crosslinking, and the foam furnace, a special manufacturing device for the foamed PE rolls. Comparisons are made between similar technologies in the field worldwide. Structure and principle of the foam furnace are given. Discussions are given on current situations and the prospect in China in research and development and applications of radiation crosslinked polyethylene foam.

KEYWORDS Radiation crosslinking, Foamed plastics, Processing technology

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