

	PROTOCOLO DE GENERACIÓN DE PUBLICACIONES EN GTED-UC REGISTRO DE PUBLICACIÓN	Fecha: 16-10-2013
		Página 1 de 1

TITULO ARTÍCULO (En Inglés)	Characterization of Materials with Repellents and Consolidants from a Historic Building		
TITULO ARTÍCULO (En Español)	Caracterización de los materiales de un edificio histórico con hidrofugantes y consolidantes		
AUTORES	Thomas, C., Lombillo, I., Setién, J., Polanco, J., and Villegas, L		
TÍTULO REVISTA	Journal of Materials in Civil Engineering (ASCE)		
ISSN	Área de conocimiento	Impact Factor	Cuartil
0899-1561	CONSTRUCTION & BUILDING TECH. ENGINEERING, CIVIL	0.959 (2012)	Q2 Q2
Fecha (Año/Mes)	Web revista		
2013/11	http://ascelibrary.org/journal/jmcee7		

ABSTRACT (En inglés)

In order to study the feasibility of the rehabilitation of the building of the Palace of Riva Herrera (sixteenth century), in Santander, Spain, four types of natural stone found in the building have been characterized. The chemical, microstructural, physical, and mechanical properties have been obtained. Also, in order to evaluate the durability of the stones, a program of freeze-thaw aging has been completed. In parallel, the effect of four commercial water repellents and consolidants was analyzed by means of capillary absorption tests. The results showed relations between the durability and the open porosity of the different stones. The capillarity absorption coefficient can be applied as an indicator of durability. Also, all of the waterproofing treatments were shown to be effective, reducing the capillary absorption of the treated stones with respect to the stones not subjected to protective treatments by virtue of a delay in the capillarity process, this effect being greater in more porous material.

Keywords (En inglés)

Conservation, Stone, Heritage, Repellent, Consolidant, Capilarity, Absorption

RESUMEN (En español)***Palabras clave (Español)***

* Caso de estar publicado en revista de lengua española.