Urban Greening Project - Rome

CuTex - Permeable Root Barrier

Municipio Roma VII is the most heavily populated Municipio in the Italian Capital with more than 300,000 inhabitants.

The Viale Appio Claudio Revelopment included the upgrade of external works including vital infrastructure and costly pavement surfaces. As a populated urban area it was critical to maintain the presence of trees within the public realm. The client wished to incorporate new Pinus Pinaster within the hard landscape and for existing trees to continue to feature.

Trees improve air quality by absorbing CO2, NO2 and particulate matter whilst releasing Oxygen. Whilst their cooling effect is welcome in the summer months their ability to decrease wind speed can contribute to reducing heat loss in the winter months. Whilst sustainable urban drainage systems have become widely recognised and embraced in this century, trees have been delivering a subterranean drainage solution without a great deal of recognition. All these benefits add to the undoubtable calming presence of trees within our urban environs.

Whilst trees deliver a great deal of benefit within an urban environment their roots can cause issues by disturbing a surface or vital infrastructure. The cost of repair to pipework, drainage or pavements can be costly and inconvenient.

Impermeable barriers are commonly used to divert or contain tree roots by creating a physical barrier through which a root cannot pass. Unfortunately, such a solution also prevents the movement of water promoting drainage issues and preventing the passage of waterborne nutrients required elsewhere.

Project Information	
Location	Rome, Italy
Product	CuTex Copper Composite
Architect	Valeria Gatta
Installer	Naty srl
Project	Municipio VII - Viale Appio Claudio Redevelopment

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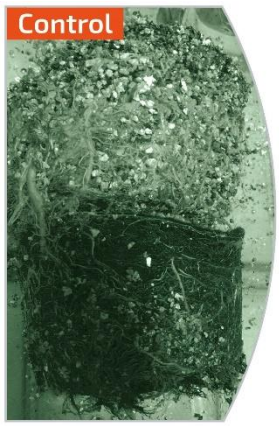
CuTex was used to safely contain roots within the desired areas whilst maintaining the natural hydrology. The product installation successfully created a durable physical barrier along with a safe chemical barrier. CuTex is a composite solution manufactured using high performance woven and nonwoven geotextiles with a copper core. Placed within the ground CuTex naturally creates a zone of inhibition formed of copper ions.

Whilst repelling roots entering the zone of inhibition, vegetation beyond grows naturally unaffected by the copper's presence.

GEOfabrics have worked with the University of Leeds Plant Science Department to provide independent testing of the Copper Composite Barrier since 2017.



The benefits of using CuTex:

- CuTex is Safe – independently tested by University of Leeds Plant Science Department
- CuTex is Permeable – maintaining natural hydrology and not hindering movement of waterborne nutriets
- CuTex Inhibits Root Growth – CuTex acts as both a physical and a chemical barrier to assist with the control of tree and plant roots
- CuTex is proven – supplied globally into applications within rail, residential, brownfield remediation and amenity sectors.
- CuTex is tested – PD CEN/TS 14416:2014 Resistance to roots with Lupin & Japanese Knotweed

For more information on CuTex please contact Chris Daykin at cdaykin@geofabrics.com or on +44 113 202 5678

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