



IN ACTION

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Knowledge

Solutions

‘Acqua per L’Aquila’ - Securing water for earthquake victims in L’Aquila, Italy

In the early hours of the morning of April 6 2009, the Abruzzi region of central Italy was hit by a major earthquake. Particularly badly affected was the town of L’Aquila in which 299 people were killed, more than 1,000 injured and, with the destruction of 15,000 buildings, 28,000 people were made homeless and without access to essential services such as clean drinking water.

Under the umbrella of its Water for the World programme, Borealis together with Italian pipe producer System Group-Centraltubi took the initiative and provided on a pro bono basis the infrastructure to supply drinking water for 1,800 people.



In April 2009 there was a major earthquake in the Abruzzi region of Italy, which killed 299 people and made 28,000 people homeless. The historical town of L'Aquila was particularly badly hit and many important historical buildings were destroyed or badly damaged. During the summer months the displaced people lived in tented villages but as winter and colder temperatures approached it was necessary to provide them with temporary housing.

The rehousing project for the earthquake victims was managed by the National Civil Protection (NCP) service. Borealis together with Systems Group – Centrltubi, a leading Italian pipe manufacturer, also wanted to make a contribution to the welfare of the victims and initiated 'Acqua per L'Aquila'.

Together with NCP, Borealis quickly determined the needs and possibilities of support and after a short period it was agreed to provide the drinking water pipeline for one of the new housing communities called 'Coppito 3'. This area would encompass 15 housing blocks to resettle approximately 1,800 people.

Proven solution for earthquake-risk zones

Experience in other countries has shown that polyethylene (PE) pipes perform much better than alternative materials in earthquake-risk areas and would therefore be ideal for the new water supply system at L'Aquila. Indeed in the Kobe earthquake in Japan in 1995 none of the PE gas pipes were damaged whereas many failures occurred in the city's iron and steel mains. This single event convinced the Japanese authorities to use PE in all regions of the country that are vulnerable to earthquakes, a pattern that is now followed in many other countries.

To provide even greater security in this vulnerable region of Italy, Borealis supplied its latest generation material, BorSafe LS-H for the project in L'Aquila. This high stress crack resistant material has been especially developed to cope with difficult installation conditions or other situations

where pipes are likely to become damaged or subjected to higher external stresses.

The material was delivered on a pro-bono basis to Centrltubi who then produced the 1.3 kilometres of 90mm and 180mm diameter pipes required for the project. The pipe was installed at the end of September and full construction was completed at the end of November 2009, allowing residents to move-in in early December – before the onset of winter.

"We are happy that we could contribute to the rehousing project in L'Aquila and we would like to thank all involved, especially to our partner Centrltubi and Professor Alessandro Marangoni" states Cino Serrao, Business Development Manager Borealis Italia. "Without their enthusiastic support this project would not have been possible."

Water for the World – Borealis' commitment to a global challenge

Acqua per L'Aquila is part of Water for the World, a programme established by Borealis and Borouge for the purpose of contributing solutions to global water challenges. Projects include the installation of water supplies for water-stressed communities as well as sanitation systems to improve community health, hygiene and well-being. They also encompass the provision of aid in the case of disasters such as earthquakes, which destroy the water supply systems vital to survivors and fundamental to the rebuilding of devastated societies.

Prior to L'Aquila, the programme gave aid to the village of Shengli in Sichuan province, China, following the devastation caused by a major quake in the region in May 2008. PE materials were supplied to local pipe producer Chinaust for the manufacture of 2,000 meters of pipes, to connect mobile water treatment plants with a river close to the village, to provide drinking water supplies for a population of 10,000 inhabitants.



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To learn more about the Water for the World visit: www.waterfortheworld.net and www.tubi.net

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