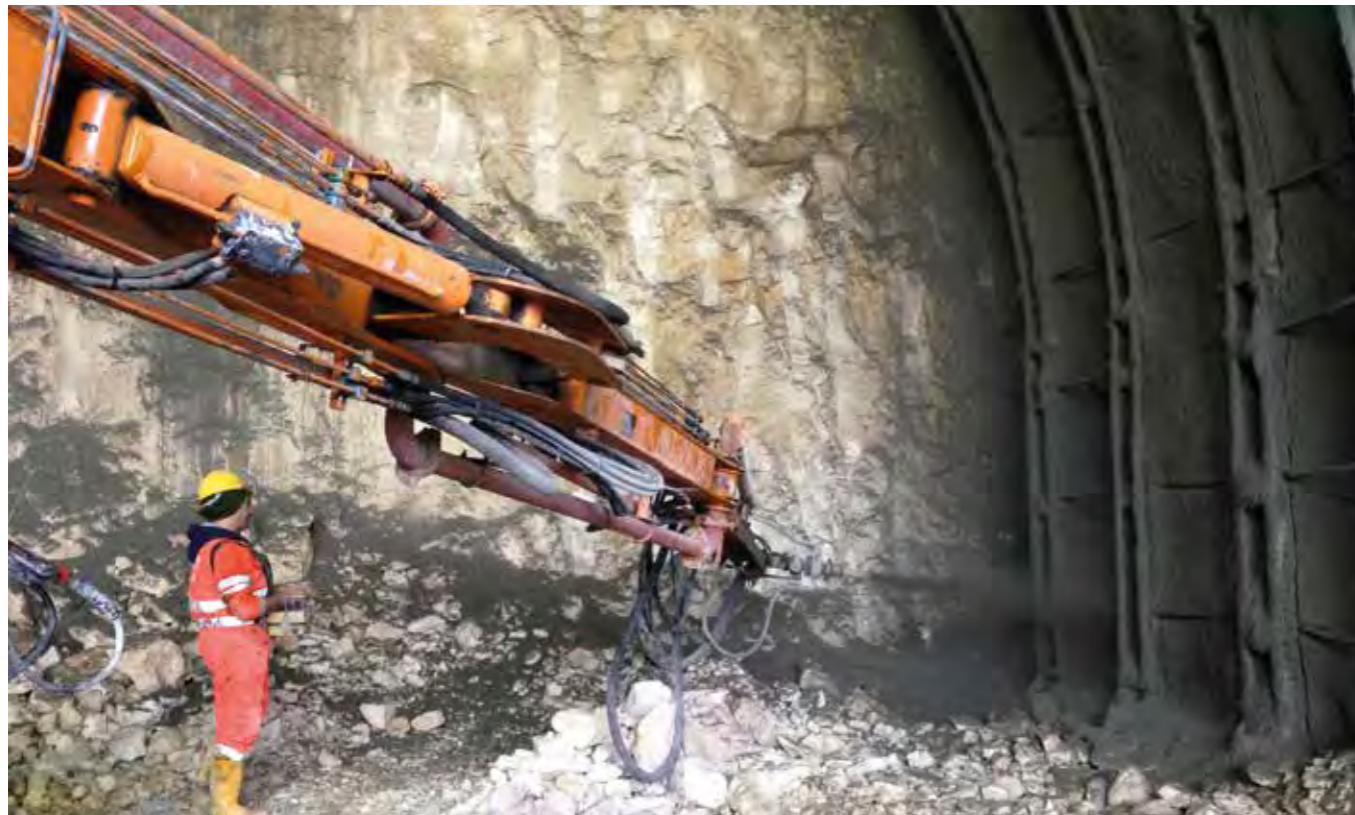


Vicenza-Treviso (Italy) Veneto Foothills Motorway

AN EXTENSIVE RANGE OF PRODUCTS FOR UNDERGROUND WORK
ALONG AN IMPORTANT MOTORWAY IN NORTHERN ITALY



TOP OF THE PAGE. Applying shotcrete in the tunnels. **BELOW, LEFT.** Waterproofing the tunnels with MAPEPLAN TU S. **RIGHT.** The tunnel surfaces were painted with MAPECOAT W HRI epoxy coating.

The Pedemontana Veneta toll-road, or Veneto Foothills motorway, is a by-pass in Northern Italy that, once completed, will connect Montecchio Maggiore, in the southern part of the Province of Vicenza, to Spresiano, in the northern part of the Province of Treviso, passing through the Thiene-Schio industrial park, Bassano del Grappa and to the north of Treviso, before linking with three motorways (A4, A31 and A27). At the moment it is possible to drive from Malo to Spresiano, a distance of 80 km of its total length of 97.7 km once completed.

The by-pass serves an extensive area of a territory with 114 towns and cities, 37 of which are directly connected to the by-pass, with 22 in the Province of Vicenza and 14 in the Province of Treviso. The by-pass will meet the demand for greater mobility generated in the area around the foothills, the most urbanised and industrialised in the Veneto region. It will also allow to complete a road network of the highest level that will be integrated into the transport network of European corridors.

Admixtures, waterproofers and coatings

Mapei UTT (Underground Technology Team) supplied products and technical support to the contractors working on the underground sections of the Pedemontana Veneta by-pass along the stretch connecting the A4 motorway and Malo, which includes a total of 16 km of tunnels.

The double-barrel tunnels at Castelgomberto and Sant'Urbano are 6.5 and 1.5 km long, respectively, with an additional 800 m of emergency tunnels.

The collaboration between Mapei UTT and the main con-

tractors started when work commenced back in 2014 and in continued until their completion in December, 2022.

Both shotcrete and poured concrete using formwork were used in the construction of the tunnels.

For these works, Mapei supplied MAPEFIBRE CN54 structural polypropylene fibers to make the fibre-reinforced, high ductility concrete; DYNAMON SX MC and DYNAMON SX 34 super-plasticising admixtures, MAPEQUICK AF 1000 and MAPEQUICK AF 350 set-accelerators for the shotcrete and MAPEGROUT GUNITE fiber-reinforced cementitious mortar for lining tunnels.

CABLEJET plasticizing and expanding agent was used for preparing shrinkage-free, highly-fluid pumpable slurries for anchoring tie rods, while STABILCEM T, one-component pre-blended shrinkage-compensated thixotropic mortar, was used for fixing bolts for steel reinforcement meshes.

The internal surfaces of the tunnel were waterproofed with MAPEPLAN TU S PVC-P synthetic membrane, chosen in its white-off version.

MAPECOAT W HRI two-component epoxy protective coating (chosen in its RAL 9010 and RAL 2002 colour shades) was used to finish off the surfaces of concrete walls in the tunnels.



Find out more
MAPECOAT W HRI

TECHNICAL DATA

Castelgomberto and Sant'Urbano tunnels, Veneto Foothills

Motorway, Castelgomberto and Sant'Urbano, Provinces of Vicenza and Treviso (Italy)

Owner: Veneto Region

Period of construction: 2014-2022

Period of the Mapei

intervention: 2014-2022

Intervention by Mapei: supplying admixtures for concrete and shotcrete, products for waterproofing and lining tunnels

Mapei coordination: Mapei UTT, Enrico Dal Negro, Giorgio Tansini, Davide Michelis, Manuel Giamporcaro

MAPEI PRODUCTS

Structural fibers: Mapefibre CN54

Concrete admixtures:

Dynamon SX MC, Dynamon SX 34, Mapequick AF 1000,

Mapequick AF 350

Waterproofing: Mapeplan TU S

Mapeplan TU S

Anchoring: Stabilcem T,

Cablejet

Tunnel lining: MapegROUT Gunite

Protective coating: Mapecoat W HRI

For further info on products see mapei.com and utt.mapei.com