

AGRUFLEX™ Tunnel Liner Protects Koralm Tunnel from Ground Water



Scheduled to be operational in 2022, the Koralm Tunnel project, at 20 miles, will be Austria's longest railway tunnel. The ambitious project is part of the Koralm Railway project, an 80 mile line that will link Graz with Klagenfurt. The new high speed line is expected to reduce travel time between the two cities from three hours to one.

The Koralm Tunnel, which runs at depths of 4000 feet below the surface in the Koralpe mountain range, is comprised of two parallel tunnels, each with a single track, linked with crossways every 550 yards.

Construction Challenges: The geomembrane used to seal the tunnel had to meet the strict 2012 Austrian Tunnel Sealing Guideline (Österreichische Bautechnik Vereinigung or ÖBV). It also had to protect the new tunnel from groundwater.

The Solution: Construction began in 2008 at the tunnel's east entrance or the KAT 1, a section length totaling approximately 1.4 miles. To meet the ÖBV guideline and protect the tunnel from groundwater seepage, engineers chose 2.1 mm AGRUFLEX tunnel liner.

Approximately 1,400,000 sq. ft. of the 80 mil. liner was installed between 2012 and 2013, along with an additional 40,000 feet of water stop profiles (AA 500/6.)

The KAT 1 tunnel section was successfully completed in November 2013. Extensive testing has proven that the AGRUFLEX tunnel liner has met the ÖBV Guideline for chemical and water resistance and has minimal environmental impact.

AGRUFLEX Tunnel Liner

- A very low density polyethylene (VLDPE), AGRUFLEX Tunnel Liner combines flexibility with tensile properties, chemical resistance and long-term performance
- Because VDLPE contains no volatile plasticizers, AGRUFLEX keeps its mechanical properties – ensuring tight construction for the life of the tunnel

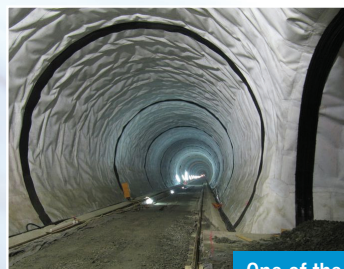
Benefits of AGRUFLEX Tunnel Liner

- High chemical resistance
- Easy to install; good weldability
- Emits no toxic fumes in case of fire

If you have an application challenge, call Agru. We're here to help you.



Koralm Tunnel, Austria



One of the main tunnels with a crossway



Waterstop connection of main tunnel and crossway

The Best Protection for Your Future!

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