



PFISTERER

Composite Insulators for High Voltage Applications

Hollow core insulators for cable terminations and current transformers installed in 1975.

PFISTERER started in 1975, the era of composite insulator design and manufacture. Since then, Silicone Rubber has been used as housing material. The first applications were hollow core insulators for cable terminations and current transformers.



123 kV Cable Termination installed in 1975



245 kV Current Transformer manufactured in 1975

After the first positive service experiences with these applications, it was a logical step to use the composite insulator concept with Silicone Rubber housing for line applications as well. It was a Swiss railway project, resulting from the need to eliminate the contamination-related outages by replacing the original, ceramic insulator designs. The first composite insulators were installed in 1979 on the Swiss railway lines.



Catenary Installation for the Swiss Railway installed in 1979

With the increasing demand for composite insulators, this technology has been growing rapidly. At the same time, the first service experience led to optimisation of the properties of the Silicone Rubber. For these reasons, PFISTERER decided to focus primarily on HTV-Silicone Rubber technology (HTV = High Temperature Vulcanising). Since the early nineties, such insulators have been installed up to 550 kV for applications in lines and systems. An engineering milestone, which shows PFISTERER's capabilities, was the design and manufacture of the world's first 420 kV line equipped with braced line post arrangements using composite insulator technology in 1998.



420 kV Braced Line Post erected in 1998

Since the year 2000, the HTV technology has been extended for bulk volume manufacturing of railway insulators for high speed tracks worldwide.



High Speed Track of KTMB Malaysia



High Speed Track in the Swiss Loetschberg Tunnel

With 30 years' knowledge and experience in the design and production of composite insulators using Silicone Rubber technology as well as the corresponding feedback from operational service, PFISTERER offers solutions for the complete range of applications:



- suspension / tension insulators up to 1000 kN
- line post insulators
- station post insulators
- system insulators

The voltage range of the composite insulators is from 1,5 kV up to 1000 kV for AC and DC applications.



Station Post for 800 kV DC

The understanding of customer requirements and long-term experience in the design and manufacture of Silicone Rubber insulators makes PFISTERER the first choice partner for today's special challenges such as the new generation of braced line post configuration for compact lines, 500 kN rated tension insulators and high strength station posts.



DEWA's 420 kV Compact Line



ATEL's 420 kV Line with 500 kN Force Rating