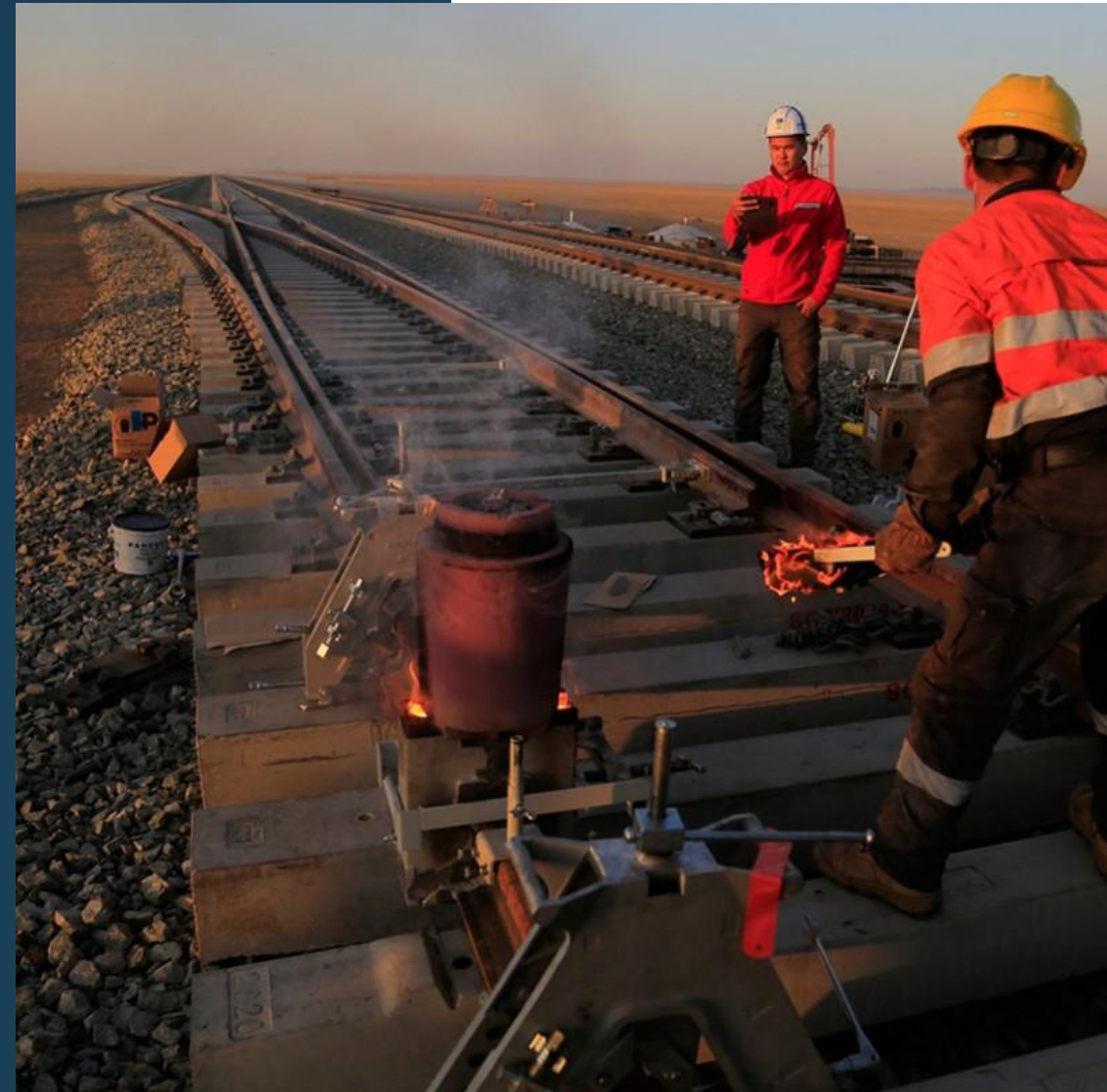


UK PANDROL ALUMINOTHERMITE WELDING TECHNOLOGY



What is Aluminothermite welding?

Aluminothermic welding is a method based on an exothermic chemical reaction of aluminium powder and iron oxide, producing sufficient heat to cause melting.

This welding is used by **connecting rails and to create continuous welding railway.**





Tavantolgoi-Gashuunsukhait Railway Complex Project which is A Grade 1 railway is used the technology of Aluminothermite by Pandrol company.

Total 233.6 км of continuously welded railway, 110 set switching crosses overall 1800 complete Aluminothermite welding is made by.

Quality control of Aluminothermite Welding

- **Geometric parameter:** Equality of the rail surface is measured and confirmed by the dipstick /acqueiscence-0.3MM/
- **Nondestructive test:** In the welding part, ultrasound checking is done for the identification of granule, cracks
- **Destructive test:** In order to know it's feature, load by the specific equipment until it's deformation. Confirmation is completed by the resilience status which is overseen/1100κH/



Advantage of Aluminothermite

- This welding is easily made by claustrophobic condition
- Welding material and tools are one time usage which is best for the quality
- Comparing with the jointed track, cost is reduced by 70% during the rail operation
- To increase the possibility of throughout capacity



THANK YOU