



Welding Pt-10%Rh DPH-A(dvanced)

Pt-10%Rh DPH-A has very good welding properties and can be welded using all established processes including tungsten inert gas (TIG), laser and electron beam.

When a weld seam is created, the material liquefies for a short time before solidifying again. The number of strengthening dispersoid particles in the weld zone thus decreases and the material properties change. In particular, the strengthening effect of dispersion hardening is reduced and the strength can drop to the level of the base alloy.

As a result of the special melting metallurgical process for manufacturing Pt-10%Rh DPH-A a high proportion of hardening dispersoids and an excellent grain structure are present in the solidified microstructure of the weld seams. Pt-10%Rh DPH-A distinguishes itself from powder metallurgical materials by its excellent combination of strength and ductility which is also maintained after welding.

Over and above automated circumferential and longitudinal welding processes it is possible to manufacture manual weld joints in complex components and in areas which are not easily accessible. Depending on the specific application and the weld design, welding is carried out with or without additional filler metal.

When welding with additional metal, various materials can be used in order to achieve maximum strength of the joints. In subsequent processing the seams can be machined to the original sheet thickness so that a homogeneous temperature distribution is ensured in resistance or inductively heated systems.

Our Heraeus specialists will be pleased to advise you on the correct choice of welding process.

