

# R-TECH MATERIALS

World Class Expertise In  
Engineering Materials

Weld Testing & Consultancy

R-TECH Materials are experts in the welding & brazing of a variety of materials. Our expert Metallurgists and Welding Specialists hold expertise in the requirements of a number of international standards.

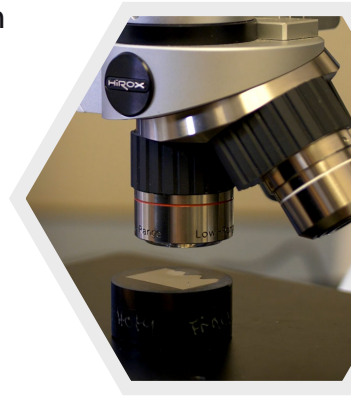
The joining of metal components is essential for a wide range of industries and thus, is central to global economy infrastructure. Two of the most common joining methods that are utilised today are welding and brazing. These techniques are critical in the fabrication of a wide range of pressure retaining and structural equipment. Many types of joint configuration are required in order to produce such equipment. The instruction on how to achieve a certain type of weld are listed in the Weld Procedure Specification (WPS). The sound design of such equipment requires an understanding of the mechanical properties associated with welded or brazed joints. Thus, welded and brazed joints undergo testing in order to confirm the particular joint meets the specified mechanical properties. The results are expressed in the Weld Procedure Qualification Record (WPQR).

Workmanship is an essential aspect of both welding and brazing. Technical ability and skill are critical to achieving consistent welds with the appropriate mechanical properties. Thus welders are required to be qualified in undertaking welds to a particular WPS. This involves the production of a test piece which is then subject to testing. This is known as welder qualification.

R-TECH Materials are experts in materials testing and deliver accredited weld testing to a variety of international standards. Further, our skilled welding metallurgists are able to advise on any issues that are encountered across a range of materials. For more information please get in touch today!

**R-TECH Materials have experienced, qualified IIW/EFW Welding Specialists who can advise and assist fabricators to enable them to meet the requirements of a number of international standards. Our services include:**

- Acting as a responsible Welding Coordinator on a contract basis
- Training of Company Welding Coordinators
- Testing of welds for weld procedure and welder qualification





## Welding Consultancy Services

R-TECH Materials are IIW/EFW Welding Specialists who are able to advise on welding processes, quality systems, welding procedure and welder qualification across a range of metallic materials



The joining of metallic materials by welding represents a series of unique challenges for engineers. The relative complexity of the various welding processes, the material changes which occur with welding from melting and solidification, through to accelerated cooling and the influence of heat affected microstructures, and the influence of the welder's technique, the environment, consumables etc all impact upon the performance of the welded joint. Welding Engineers therefore need to have a wide-ranging knowledge of processes, metallurgy & design in order to put in place the appropriate controls to achieve welds of consistent quality and integrity. R-TECH Materials have a number of staff who hold extensive experience in welding and brazing to a variety of welding standards and codes. Our expertise in metal fabrication means that we are well placed to be able to advise on project specific requirements. For more information please get in touch today!

## Our Weld Testing Services

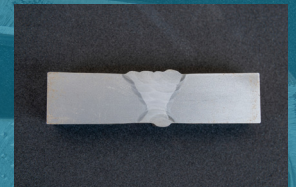
### Visual Inspection



### Non-destructive Testing



### Metallography



### Hardness Testing



### Tensile Testing



### Charpy Impact Testing



### Bend Testing



## CONTACT US

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