

## **IS 814:2004, Manual Metal Arc Welding**

Welding electrodes finds wide variety of applications ranging from aerospace, automotive, construction, energy , marine , oil and gas applications. It is used for welding of high-strength and lightweight alloys. Welding chassis, engine, and transmission repair in automotive sector .Welding building frames, bridges, and structural steel in construction industry. Power plant maintenance and pipeline welding. Shipbuilding, repair, and maintenance. Drilling equipment and pipeline welding in Oil and gas applications.

When looking at the diverse application of welding role it is inevitable to ensure the quality of the welding electrode. Failure to meet the intended performance parameters could have a tremendous impact and disastrous consequence in the processes/applications where they are used.

Indian Standard **IS 814:2004** specifies requirements for covered electrodes used in **manual metal arc welding** of carbon and carbon-manganese steel, a critical component in welding procedures across various industries. The standard, therefore, serves as a comprehensive guideline for industries requiring reliable and durable welding practices, supporting applications that range from infrastructure to high-stakes sectors like marine and energy