

Carbon Steel Electrodes 碳钢焊条

Model Name	Standard	Chemical composition	Mechanical Properties	Description
UN-E6010	AWS E6010 DIN E4343C4 GB/T E4310	C≤0.20 Mn 0.3–0.6 Si≤0.2	$\delta b \geq 420\text{MPa}$ $\delta s \geq 330\text{MPa}$ $\delta 5 \geq 22\%$ $Akv(J) \geq 27(-30^{\circ}\text{C})$	For girth downward welding on all kinds of carbon steel pipes
UN-E6011	AWS E6011 JIS D4311 DIN E4343C4 BS E4343C13 GB/T E4311	C≤0.08 Mn 0.3–0.6 Si≤0.18	$\delta b \geq 420\text{MPa}$ $\delta s \geq 330\text{MPa}$ $\delta 5 \geq 22\%$ $Akv(J) \geq 27(^{\circ}\text{C})$	Welding of shipbuilding structures such as buildings and bridges, storage tanks, pipes and pressure vessel fittings.
UN-E7014	AWS E7014 GB/T E5014	C≤0.12 Mn≤1.25 Si≤0.90	$\delta b \geq 490\text{MPa}$ $\delta s \geq 400\text{MPa}$ $\delta 5 \geq 17\%$ $Akv(J) \geq 27(0^{\circ}\text{C})$	It is suitable for welding of carbon steel and low alloy steel, such as welding of 16Mn, and structure of ships, vehicles as well as
UN-E7015	AWS E7015 GB/T E5015	C≤0.12 Mn≤1.6 Si≤0.75	$\delta b \geq 490\text{MPa}$ $\delta s \geq 400\text{MPa}$ $\delta 5 \geq 22\%$ $Akv(J) \geq 27(-30^{\circ}\text{C})$	The deposited metal has excellent mechanical properties. It is used for welding middle-carbon and low-alloy steel structure, such as pressure containers, bridges, and ship structure
UN-E7016	AWS E7016 JIS D5016 DIN E5154B(R)10 GB/T E5016	C≤0.12 Mn≤1.6 Si≤0.75	$\delta b \geq 400-560\text{MPa}$ $\delta s \geq 305\text{MPa}$ $\delta 5 \geq 22\%$ $Akv(J) \geq 47(-20^{\circ}\text{C})$	Welding of important structures made of low alloy steel with corresponding grade of strength.
UN-E7016-1	AWS E7016-1 GB E5016-1	C≤0.12 Mn≤1.60 Si≤0.70	$\delta b \geq 490\text{MPa}$ $\delta s \geq 400\text{MPa}$ $\delta 5 \geq 22\%$ $Akv(J) \geq 27(-46^{\circ}\text{C})$	Same as E7016, have better crack-resistance and low-temperature impact toughness.
UN-E7018-1	AWS E7018-1 GB E5018-1	C≤0.12 Mn≤1.60 Si≤0.70	$\delta b \geq 490\text{MPa}$ $\delta s \geq 400\text{MPa}$ $\delta 5 \geq 23\%$ $Akv(J) \geq 27(-46^{\circ}\text{C})$	Added to more alloy, its low-temperature impact toughness is stronger than AWS E7018, suitable for welding key structure, such as petroleum platform on ocean and ships.
UN-E7024	AWS E7024 GB E5024	C≤0.12 Mn 0.8–1.4 Si≤0.90	$\delta b \geq 490\text{MPa}$ $\delta s \geq 400\text{MPa}$ $\delta 5 \geq 17\%$ $Akv(J) \geq 27(0^{\circ}\text{C})$	Used for welding efficiently on carbon steel and low-alloy steel sheet with middle-gauge such as ships, bridges, etc. It's suitable for downhand welding and flat fillet welding.