

## INCONEL ALLOY 45

# NICKEL ALLOY

HIGH TEMPERATURE RESISTING ALLOY

INCONEL 45 covers nickel alloy forgings. These alloys are classified into different grades according to their chemical composition. Inconel 45 Alloy covers Ni-Cr-Fe-Si alloy UNS N06045. Alloy 45 is a high-chromium austenitic nickel-chromium-iron alloy with addition of about 3% silicon and 0.10% rare earth elements. The formation of a protective chromium oxide layer, together with a sublayer with a subjacent silicon oxide layer, makes the alloy especially suitable for applications such as in waste incineration and petrochemical facilities.

### Chemical Properties

C	Mn	P	S	Si	Cr	Ni	Cu	Ce	Fe
0.05-0.12	1.0 Max	0.02 Max	0.010 Max	2.5-3.0	26.0-29.0	45 Min	0.3 Max	0.03-0.09	21.0-25.0

### Mechanical Properties

Yield strength	Tensile strength	Elongation
Min 0.2% Mpa	Min Mpa	Min %
240	620	35

### Heat Treatment

Solution Annealed @ 1177°C & Rapidly Liquid Quenched

### Equivalent Designation

UNS N06045  
En Name NiCr28FeSiCe  
W.Nr. 2.4889

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