



STAINLESS STEEL SA-351 CF3

CF3 is the cast equivalent of Type 304L Stainless Steel. CF8 and CF3 have very similar chemical and mechanical properties. CF3 is a variation of CF8 and has a lower carbon content which improves weldability and lowers the risk of reduced corrosion resistance around the weld. CF3 is preferred to CF8 when there will be no post-weld heat treatment. Solution annealing is necessary for maximum corrosion resistance and to prevent intergranular attack. CF3 is used for applications below 345°C in industries ranging from food and beverage to nuclear power, petroleum and detergent manufacturing. Components produced in CF3 include impellers, manifolds and valve bodies.

Chemical Composition

Element		%
Carbon	C	0.03 maximum
Silicon	Si	2.0 maximum
Maganese	Mn	1.5 maximum
Phosphorus	P	0.04 maximum
Sulphur	S	0.04 maximum
Chromium	Cr	17 - 21
Nickel	Ni	8 - 12
Molybdenum	Mo	0.50

Heat Treatment

1040°C min. followed by a quench in water or rapid cool by other means

Typical Mechanical Properties	
Tensile Strength	485 MPa min.
Yield Strength	205 MPa min.
Elongation (in 50mm)	35 % min.

Comparative Specifications

Material	Country/Standards
A351 CF3	USA/ASTM
1.4306	DIN
J92500	USA/UNS
SCS 19A	Japan/JIS
304L	AISI

To discuss your requirements, call a member of NovaCast's team on +44 (0) 1225 707466, or email sales@novacast.co.uk

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