

## Material properties

<b>Material</b>	<b>409 S 19 (United Kingdom / B.S.)</b>
<b>Group</b>	Stainless and heat resisting steels
<b>Subgroup</b>	BS 1449-2 Ferritic stainless steel plate, sheet and strip
<b>Comment</b>	Hot rolled and cold rolled flat stainless and heat-resisting steel products in coil and cut length form
<b>Application</b>	-

Yield Stress[MPa]			
Dimension	Min	Max	Approx
Plate; Softened; $3 \leq t < 100$ mm	200	-	-
Wide strip, sheet; Softened; $0.3 \leq t < 3$ mm	200	-	-
Narrow strip; Softened; $0.05 \leq t < 0.3$ mm	200	-	-

Tensile Stress[MPa]			
Dimension	Min	Max	Approx
Plate; Softened; $3 \leq t < 100$ mm	350	-	-
Wide strip, sheet; Softened; $0.3 \leq t < 3$ mm	350	-	-
Narrow strip; Softened; $0.05 \leq t < 0.3$ mm	350	-	-

Elongation A5 [%]			
Dimension	Min	Max	Approx
Plate; Softened; $3 \leq t < 100$ mm	20.0	-	-
Wide strip, sheet; Softened; $0.3 \leq t < 3$ mm	20.0	-	-
Narrow strip; Softened; $0.05 \leq t < 0.3$ mm	20.0	-	-

Hardness	
Dimension	Hardness
Plate; Softened; $3 \leq t < 100$ mm	$\leq 190$ HV
Wide strip, sheet; Softened; $0.3 \leq t < 3$ mm	$\leq 175$ HV
Narrow strip; Softened; $0.05 \leq t < 0.3$ mm	$\leq 175$ HV

**Chemical Composition [%]**

<b>Criterion</b>	<b>Min</b>	<b>Max</b>	<b>Approx</b>
C	-	0.0800	-
Si	-	1.0000	-
Mn	-	1.0000	-
P	-	0.0400	-
S	-	0.0300	-
Cr	10.500	12.500	-
Ni	-	1.0000	-
Ti	-	-	-

- Ti  $6 \times \%C < 1,00\%$

**Heat Treatment**

Softening: 700-950 C