

This page is mainly introduced the 1.7734 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.7734, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 1.7734

1.7734 Standard Number:		
ITEM	Standard Number	Descriptions
1	WL 1.7734-1 (1982)	Aerospace; weldable hardened and tempered chromium-molybdenum-vanadium steel with approx. 0.15 C - 1.4 Cr - 0.9 Mo - 0.25 V; sheet, plate and strip
2	WL 1.7734-2 (1982)	Weldable heat-treatable chromium-molybdenum-vanadium steel with about 0.15C-1.4Cr-0.9Mo-0.25V; rods and forgings
3	WL 1.7734-3 (1982)	Weldable heat-treatable chromium-molybdenum-vanadium steel with about 0.15C-1.4Cr-0.9Mo-0.25V; pipes
4	WL 1.7734-4 (1982)	Weldable heat-treatable chromium-molybdenum-vanadium steel with about 0.15C-1.4Cr-0.9Mo-0.25V; filler metal

1.7734 Chemical composition(mass fraction)(wt.%)									
Chemical				Min.(%)			Max.(%)		
C				0.12			0.18		
Si							0.20		
Mn				0.80			1.10		
S							0.015		
P							0.020		
Cr				1.25			1.50		
Mo				0.80			1.00		
V				0.20			0.30		
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Alloy	Condition	Ten sile Stre	Yiel d St ren	Elo nga tion	Har dne ss
-------	-----------	---------------------	---------------------	--------------------	------------------

		ngt h MP a	gth MP a	%	HB
Alloy 15CDV6	1.7734.2 (ann)	-	-	-	197
Alloy 15CDV6	1.7734.4	700	550	13	207
Alloy 15CDV6	1.7734.5	980- 118 0	790	11	293- 352
Alloy 15CDV6	1.7734.6	108 0-12 50	930	10	321- 363

Alloy 15CDV6 is a low carbon steel which combines a high yield strength (superior to SAE 4130) with good toughness and weldability. 15CDV6 can be readily welded with very little loss of properties during welding and without the need for further heat treatment. This alloy finds many applications in the aerospace and motorsports industries in such components as roll cages, pressure vessels, suspensions, rocket motor casings, wish bones and subframes.

Specifications

WS 1.7734
 15CrMoV6
 FE-PL63 S (AECMA)
 FE-PL1505 (AECMA)
 AIR 9160C
 LN 668 round bar
 MN 1013 round bar
 ASNA 3108 sheet and plate
 DIN 65389 sheet and plate
 DIN 65390 sheet and plate
 TE014 seamless tube
 LN 9369 seamless tube
 DIN 65035 forging billet

DIN 7527 forging billet

1.7734 Physical Properties

Tensile strength	115-234	σ_b /MPa
Yield Strength	23	$\sigma_{0.2} \geq$ /MPa
Elongation	65	$\delta 5 \geq$ (%)
ψ	-	$\psi \geq$ (%)
Akv	-	Akv $\geq$ /J
HBS	123-321	-
HRC	30	-

1.7734 Mechanical Properties

Tensile strength	231-231	σ_b /MPa
Yield Strength	154	$\sigma_{0.2} \geq$ /MPa
Elongation	56	$\delta 5 \geq$ (%)
ψ	-	$\psi \geq$ (%)
Akv	-	Akv $\geq$ /J
HBS	235-268	-
HRC	30	-

1.7734 Heat Treatment Regime

Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

1.7734 Range of products

Product type	Products	Dimension	Processes	Deliver Status
Plates / Sheets	Plates / Sheets	0.08-200mm(T)*W*L	Forging, hot rolling and cold rolling	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Steel Bar	Round Bar, Flat Bar, Square Bar	Φ8-1200mm*L	Forging, hot rolling and cold rolling, Cast	Black, Rough Turning, Shot Blasting,
Coil / Strip	Steel Coil /Steel Strip	0.03-16.0x1200mm	Cold-Rolled & Hot-Rolled	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Pipes / Tubes	Seamless Pipes/Tubes, Welded Pipes/Tubes	OD:6-219mm x WT:0.5-20.0mm	Hot extrusion, Cold Drawn, Welded	Annealed, Solution and Aging, Q+T, ACID-

				WASHED
--	--	--	--	--------

We can produce Specialsteel the specifications follows: