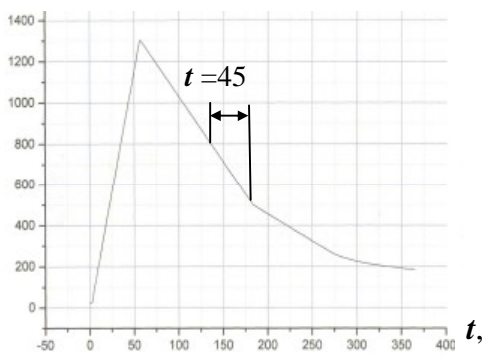


480 / ((10), -
 30 /).
 1300 , - 1 . $t_{8/5}$ -
 (800-500) ,

800...500 , -
 10 , , 45 , 25
 6,7 / , 12 / 30 / .
 .1.



. 1 , 6.7 / 800...500 .

SAWL 485 (70) ,
 (.1) -

1,79%). , (1,53

0,032 0,080%.

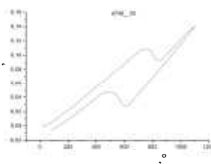
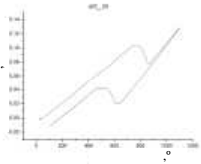
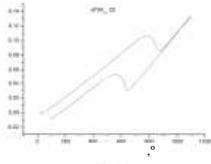
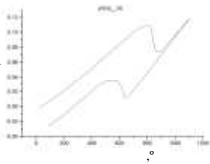
- (0,032-0,045% , 703 704);

(0,076-0,080% , 746 885).

1

	, %									
	<i>C</i>	<i>Mn</i>	<i>P</i>	<i>S</i>	<i>Ni</i>	<i>Al</i>	<i>Ti</i>	<i>Mo</i>	<i>Nb</i>	<i>V</i>
703	0,032	1,79	0,01	0,001	0,21	0,042	0,019	0,03	0,050	0,032
704	0,045	1,79	0,01	0,002	0,21	0,028	0,013	0,03	0,054	0,038
885	0,080	1,62	0,01	0,002	0,23	0,037	0,012	0,03	0,038	0,020
746	0,076	1,53	0,01	0,002	0,20	0,030	0,013	0,11	0,043	0,040


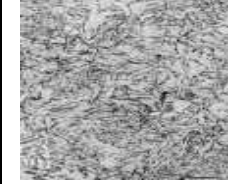


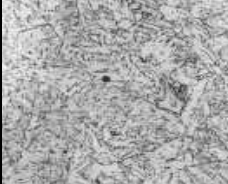
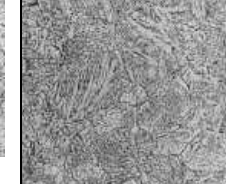
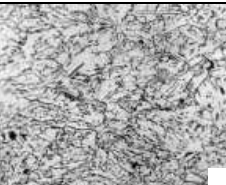
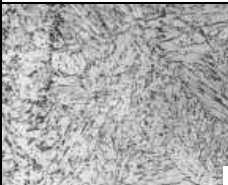
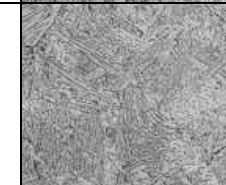
2.
746, 0,076% ,
0,11%.
(
800..500
(
746,).



2
)
703;)
704;)
885;)
746.

$t_{8/5}$ 10 45 ($V_{.8/5}$ - 30 6,7 /)
(703 704)
656...696 , (885 426)
- 640...660 , 746 (0,11%)
)
656...657 .
()

0,032-0,045% , ,
 (703 704) $V_{8/5}$
 (-) (.3,
). ()

703 (=0,032%)	704 (=0,045%)	885 (=0,080%)	
			$V_{8/5}= 30 /$
			$V_{8/5}= 12 /$
			$V_{8/5}= 6.7 /$

.3

800...500 ,
 (-),
 (),
 $V_{8/5}$ ().
 0,08% (6,7 /)

0,032-0,045% (-)

0,08% V .8/5

12 / $t_{8/5}$ 20 (-)

(-)

C (0,03-0,05%),

(0,02%), (0,06%), (1,6-1,8%)

1. A. Kojima, A. Kiyose, R. Uemori et. Super High HAZ Toughness Technology with Fine Microstructure Imparted by Fine Particles.// Nippon Steel Technical Report No. 90 July 2004, p. 2-6.
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