

Doze rate field in the copper plug region due to radioactivity induced by low energy neutrons,  $\mu\text{Sv/h}$

$T=30\text{d}, t=1\text{ d}$

$Z, \text{ cm}$

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	1351	1216	861	783	458	335	219	144	122	109	96	81	64
10-20			977	763	411	271	209	154	109	83	65	51	42
20-30			954	635	302	196	154	120	88	64	53	46	40
30-40			230	194	170	127	111	98	82	65	51	45	41
40-50			15	29	86	65	64	68	66	59	48	39	36
50-60			12	12	52	44	37	42	42	39	34	30	26
70-80			8	6	35	33	21	29	35	33	28	22	15
80-90			7	5	21	34	11	14	25	30	29	24	18

$T = 30\text{ d}, t = 5\text{ d}$

$Z, \text{ cm}$

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	17	15	11	10	6	4	3	2	2	1	1	1	1
10-20			12	10	5	4	3	2	2	1	1	1	1
20-30			12	8	4	3	2	2	1	1	1	1	1
30-40			6	4	3	2	1	1	1	1	1	1	1
40-50			2	2	2	1	1	1	1	1	1	1	0
50-60			1	1	1	1	1	1	1	1	1	0	0
70-80			1	1	1	1	1	1	1	1	1	0	0
80-90			1	1	1	1	1	0	1	1	1	1	0

T=100d, t=1 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	1361	1219	867	788	461	336	221	145	123	110	97	82	64
10-20			982	767	415	273	210	156	110	84	66	52	42
20-30			956	638	305	198	155	120	89	65	53	46	41
30-40			235	197	173	127	112	98	82	65	52	46	41
40-50			17	31	87	66	64	69	66	59	49	39	36
50-60			13	13	54	45	37	43	43	39	35	30	26
70-80			9	8	36	34	21	30	36	34	29	22	16
80-90			9	6	22	35	12	14	26	31	29	24	18

T = 100 d, t = 5 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	25	23	16	15	9	6	5	3	2	2	2	2	1
10-20			18	14	8	5	4	3	2	2	2	1	1
20-30			17	12	6	4	3	3	2	1	1	1	1
30-40			10	7	4	3	2	2	2	1	1	1	1
40-50			3	3	3	2	2	2	1	1	1	1	1
50-60			3	2	2	2	1	1	1	1	1	1	1
70-80			2	2	2	2	1	1	1	1	1	1	1
80-90			2	2	2	2	1	1	1	1	1	1	1

T = 5 y, t = 1 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	1361	1221	867	788	461	336	221	145	122	109	97	82	64
10-20			982	767	415	273	210	156	110	84	66	52	42
20-30			955	636	305	198	156	120	89	65	53	46	40
30-40			238	199	173	128	112	98	82	65	52	46	41
40-50			18	32	88	66	65	69	67	59	49	39	36
50-60			14	14	54	45	38	43	43	39	35	30	27
70-80			10	8	37	34	22	30	36	34	29	22	16
80-90			9	7	23	35	12	15	26	31	30	25	18

T = 5 y, t = 5 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	27	24	17	16	10	7	5	3	3	2	2	2	2
10-20			19	15	9	6	5	4	3	2	2	1	1
20-30			18	13	7	5	4	3	2	2	1	1	1
30-40			13	9	5	3	3	2	2	2	1	1	1
40-50			5	4	4	3	2	2	2	1	1	1	1
50-60			4	3	3	2	2	2	2	1	1	1	1
70-80			3	3	3	2	2	1	1	1	1	1	1
80-90			3	3	2	2	2	1	1	1	1	1	1

T = 10 y, t = 1 d

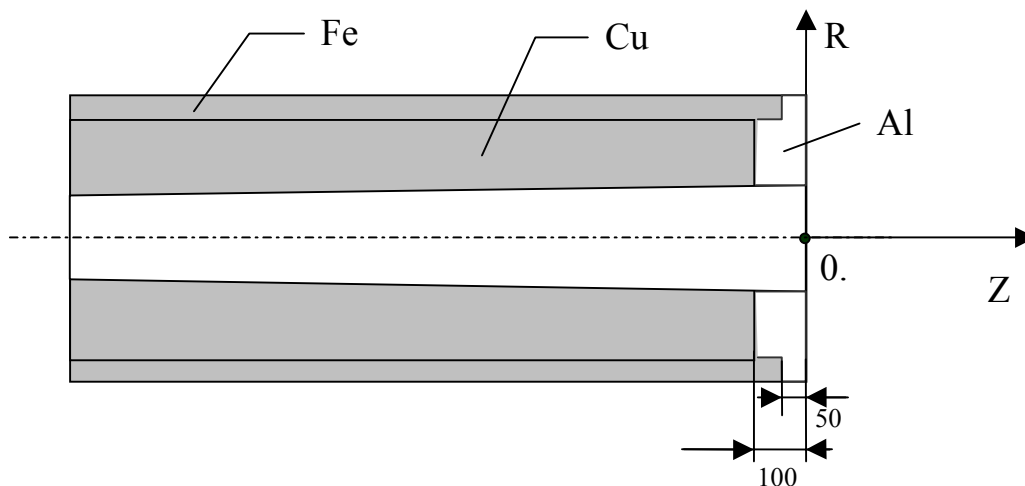
Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	1361	1221	868	788	461	336	222	145	122	109	97	82	64
10-20			982	768	415	273	210	156	110	84	66	52	42
20-30			956	637	305	198	156	121	89	65	53	46	41
30-40			238	199	173	128	112	98	82	66	52	46	41
40-50			19	33	88	66	65	69	67	59	49	39	36
50-60			15	15	54	45	38	43	43	39	35	30	27
70-80			10	9	37	35	22	30	36	34	29	22	16
80-90			10	7	23	36	12	15	26	31	30	25	18

T = 10 y, t = 5 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	27	25	18	16	10	7	5	3	3	2	2	2	2
10-20			19	16	9	6	5	4	3	2	2	1	1
20-30			19	13	7	5	4	3	2	2	1	1	1
30-40			14	10	5	3	3	2	2	2	1	1	1
40-50			5	5	4	3	2	2	2	1	1	1	1
50-60			4	4	3	3	2	2	2	2	1	1	1
70-80			4	3	3	2	2	2	2	2	1	1	1
80-90			3	3	3	2	2	1	1	1	1	1	1



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$T = 30 \text{ d}, t = 1 \text{ d}$

$Z, \text{ cm}$

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	1175	849	533	458	266	162	110	79	58	41	29	20	14
10-20			347	296	193	130	87	65	51	41	32	24	17
20-30			108	97	93	86	69	54	46	40	35	30	25
30-40			34	32	36	50	47	34	26	26	28	29	28
40-50			10	9	16	16	33	32	22	14	12	13	16
50-60			6	6	11	8	11	25	23	15	8	7	7
70-80			5	4	8	6	5	10	21	19	11	5	3
80-90			5	4	6	6	3	4	8	18	17	10	4

$T = 30 \text{ d}, t = 5 \text{ d}$

$Z, \text{ cm}$

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	15	11	7	6	4	2	2	1	1	1	0	0	0
10-20			5	4	3	2	1	1	1	1	1	0	0
20-30			2	2	1	1	1	1	1	1	1	0	0
30-40			1	1	1	1	1	1	0	0	0	0	0
40-50			1	1	1	1	1	1	0	0	0	0	0
50-60			1	1	1	0	0	1	1	0	0	0	0
70-80			1	1	1	1	0	0	1	0	0	0	0
80-90			1	1	1	1	0	0	0	0	0	0	0

T = 100 d, t = 1 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	1176	856	536	461	267	163	111	80	58	42	29	20	14
10-20			350	298	194	131	87	66	52	41	32	24	17
20-30			109	98	94	87	70	55	47	41	35	30	26
30-40			35	33	36	50	47	35	27	26	28	29	28
40-50			11	10	17	17	34	32	22	14	12	13	16
50-60			8	7	12	8	12	26	24	15	9	7	7
70-80			6	6	9	7	5	10	21	20	12	6	4
80-90			6	5	7	7	3	4	9	19	17	10	5

T = 100 d, t = 5 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	22	16	10	9	5	4	3	2	1	1	1	1	1
10-20			7	6	4	3	2	2	1	1	1	1	0
20-30			3	3	2	2	2	1	1	1	1	1	1
30-40			2	2	1	1	1	1	1	1	1	1	1
40-50			2	2	1	1	1	1	1	0	0	0	0
50-60			2	2	1	1	1	1	1	1	0	0	0
70-80			2	2	1	1	1	1	1	1	1	1	0
80-90			2	2	1	1	1	1	1	1	1	1	1

T = 5 y, t = 1 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	1176	856	536	461	267	163	111	80	58	41	29	20	14
10-20			350	298	194	130	87	66	52	41	32	24	17
20-30			109	98	94	87	70	55	47	41	35	30	26
30-40			35	33	36	50	47	35	27	26	28	29	28
40-50			12	11	17	17	34	32	22	14	12	13	16
50-60			8	7	12	8	12	26	24	15	9	7	7
70-80			7	6	10	7	5	10	22	20	12	6	4
80-90			7	6	7	7	3	4	9	19	17	10	5

T = 5 y, t = 5 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	23	17	11	10	6	4	3	2	1	1	1	1	1
10-20			8	7	5	3	2	2	2	1	1	1	1
20-30			4	3	3	2	2	2	1	1	1	1	1
30-40			3	2	2	1	1	1	1	1	1	1	1
40-50			3	3	2	1	1	1	1	1	0	0	0
50-60			3	3	2	1	1	1	1	1	1	0	0
70-80			3	3	2	2	1	1	1	1	1	1	1
80-90			3	2	2	2	1	1	1	1	1	1	1

T = 10 y, t = 1 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	1176	856	536	461	267	163	112	80	58	41	29	20	14
10-20			350	298	194	130	87	66	52	41	32	24	17
20-30			109	98	94	87	70	55	47	41	35	30	26
30-40			35	33	36	50	47	35	27	26	28	29	28
40-50			12	11	17	17	34	33	22	14	12	13	16
50-60			9	8	13	9	12	26	24	15	9	7	7
70-80			8	7	10	7	6	10	22	20	12	6	4
80-90			7	6	7	8	4	5	9	19	17	10	5

T = 10 y, t = 5 d

Z, cm

R,cm	-(20 -10)	-(10 -0)	0.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
5-10	24	18	12	10	6	4	3	2	1	1	1	1	1
10-20			8	7	5	3	2	2	2	1	1	1	1
20-30			4	3	3	3	2	2	1	1	1	1	1
30-40			3	3	2	1	1	1	1	1	1	1	1
40-50			4	3	2	1	1	1	1	1	0	0	0
50-60			4	3	2	1	1	1	1	1	1	0	0
70-80			3	3	2	2	1	1	1	1	1	1	1
80-90			3	3	2	2	1	1	1	1	1	1	1