

# PEO36

## minimální sklon (terénní úprava)

Výpočet kapacity příkopu

$Q_N = 0.70 \text{ m}^3/\text{s}$

$$Q = S \cdot v$$

$$R = S/O$$

$$c = 1/n \cdot R^{1/6}$$

$$v = c \cdot (R \cdot I)^{1/2}$$

$$n = (O_1 \cdot n_1^{1.5} + \dots + O_i \cdot n_i^{1.5})^{2/3} / O^{2/3}$$

š.dno= 2.00 m

n= 0.033

I= 0.01000

sklony 9.00

d<sub>e</sub>= 0.10000

I= 1.00 %

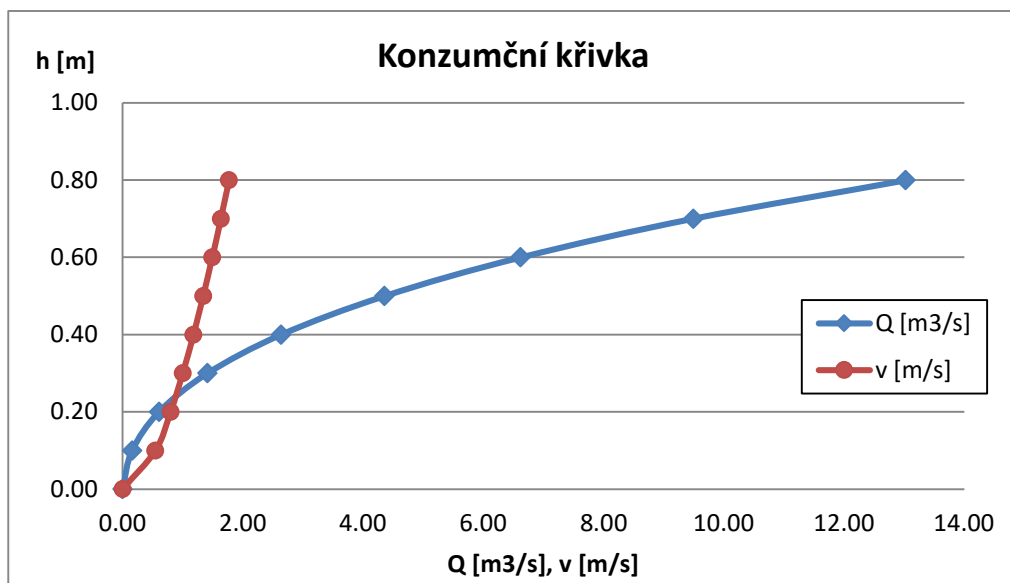
h	S	O	R	C	v	Q <sub>vyp</sub>
(m)	(m <sup>2</sup> )	(m)	(m)	-	(m/s)	(m <sup>3</sup> /s)
0.00	0.00	0.00	0.00	0.00	0.00	0.000
0.10	0.29	3.81	0.076	19.726	0.544	0.158
0.20	0.76	5.62	0.135	21.709	0.798	0.607
0.30	1.41	7.43	0.190	22.970	1.000	1.411
0.40	2.24	9.24	0.242	23.927	1.178	2.638
0.50	3.25	11.06	0.294	24.710	1.340	4.354
0.60	4.44	12.87	0.345	25.379	1.491	6.619
0.70	5.81	14.68	0.396	25.966	1.634	9.492
0.80	7.36	16.49	0.446	26.491	1.770	13.026
<b>Qkap</b>	<b>0.21</b>	<b>0.84</b>	<b>5.89</b>	<b>0.143</b>	<b>21.922</b>	<b>0.700</b>

Výpočet stability příkopu

$$v_v = 5,556 \cdot h^{1/6} \cdot d_e^{1/3}$$

$$\tau_k = 0,7753 \cdot \rho \cdot d_e$$

h	R	v	v <sub>v</sub>	τ	τ <sub>k</sub>	posuzení stability (návrhový průtok)	
(m)	(m)	(m/s)	(m/s)	(Pa)	(Pa)		
0.20	0.135	0.798	1.972	13.261	77.530		
0.30	0.190	1.000	2.110	18.608	77.530		
0.40	0.242	1.178	2.214	23.771	77.530		
0.50	0.294	1.340	2.298	28.839	77.530		
0.60	0.345	1.491	2.368	33.853	77.530		
0.70	0.396	1.634	2.430	38.832	77.530		
0.80	0.446	1.770	2.485	43.789	77.530	v < v <sub>v</sub>	τ < τ <sub>k</sub>
<b>0.215</b>	<b>0.143</b>	<b>0.830</b>	<b>1.995</b>	<b>14.061</b>	<b>77.530</b>	<b>OK</b>	<b>OK</b>



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## maximální sklon (terénní úprava)

Výpočet kapacity příkopu

$Q_N = 0.70 \text{ m}^3/\text{s}$

$$Q = S \cdot v$$

$$R = S/O$$

$$c = 1/n \cdot R^{1/6}$$

$$v = c \cdot (R \cdot I)^{1/2}$$

$$n = (O_1 \cdot n_1^{1.5} + \dots + O_i \cdot n_i^{1.5})^{2/3} / O^{2/3}$$

š.dno= 2.00 m

n= 0.033

I= 0.07600

sklony 9.00

d<sub>e</sub>= 0.10000

I= 7.60 %

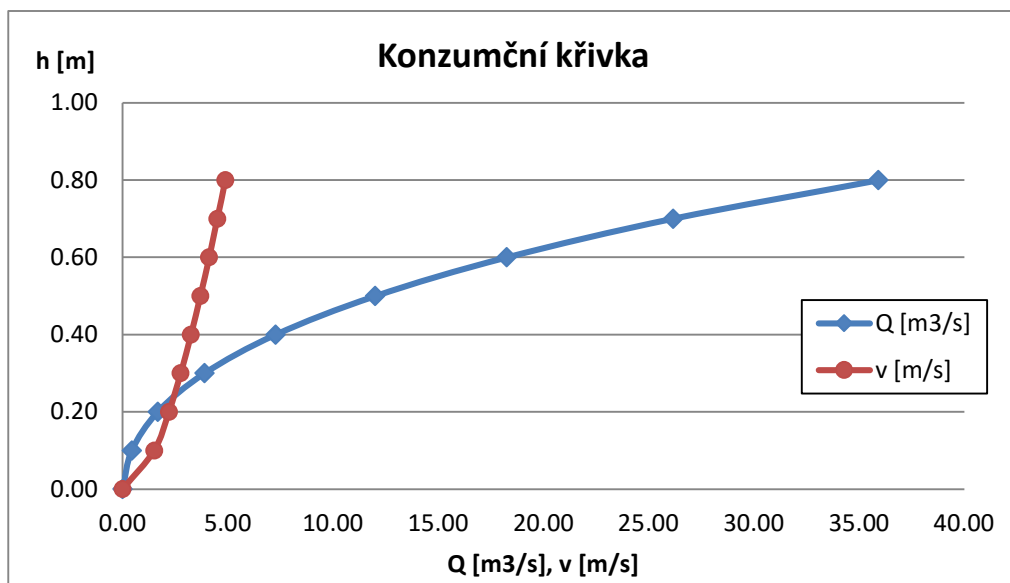
h	S	O	R	C	v	Q <sub>vyp</sub>
(m)	(m <sup>2</sup> )	(m)	(m)	-	(m/s)	(m <sup>3</sup> /s)
0.00	0.00	0.00	0.00	0.00	0.00	0.000
0.10	0.29	3.81	0.076	19.726	1.500	0.435
0.20	0.76	5.62	0.135	21.709	2.200	1.672
0.30	1.41	7.43	0.190	22.970	2.758	3.889
0.40	2.24	9.24	0.242	23.927	3.247	7.273
0.50	3.25	11.06	0.294	24.710	3.693	12.004
0.60	4.44	12.87	0.345	25.379	4.110	18.248
0.70	5.81	14.68	0.396	25.966	4.504	26.167
0.80	7.36	16.49	0.446	26.491	4.879	35.911
<b>Qkap</b>	<b>0.13</b>	<b>0.41</b>	<b>4.33</b>	<b>20.425</b>	<b>1.724</b>	<b>0.700</b>

Výpočet stability příkopu

$$v_v = 5,556 \cdot h^{1/6} \cdot d_e^{1/3}$$

$$\tau_k = 0,7753 \cdot \rho \cdot d_e$$

h	R	v	v <sub>v</sub>	τ	τ <sub>k</sub>	posuzení stability (návrhový průtok)	
(m)	(m)	(m/s)	(m/s)	(Pa)	(Pa)		
0.20	0.135	2.200	1.972	100.784	77.530		
0.30	0.190	2.758	2.110	141.424	77.530		
0.40	0.242	3.247	2.214	180.658	77.530		
0.50	0.294	3.693	2.298	219.176	77.530		
0.60	0.345	4.110	2.368	257.280	77.530		
0.70	0.396	4.504	2.430	295.125	77.530		
0.80	0.446	4.879	2.485	332.795	77.530	v < v <sub>v</sub>	τ < τ <sub>k</sub>
0.129	0.094	1.724	1.832	69.919	77.530	OK	OK



# PEO36

## minimální sklon (příkopová část)

Výpočet kapacity příkopu

$Q_N = 0.70 \text{ m}^3/\text{s}$

$$Q = S \cdot v$$

$$R = S/O$$

$$c = 1/n \cdot R^{1/6}$$

$$v = c \cdot (R \cdot I)^{1/2}$$

$$n = (O_1 \cdot n_1^{1.5} + \dots + O_i \cdot n_i^{1.5})^{2/3} / O^{2/3}$$

š.dno= 2.00 m

n= 0.033

I= 0.00500

sklony 2.00

d<sub>e</sub>= 0.10000

I= 0.50 %

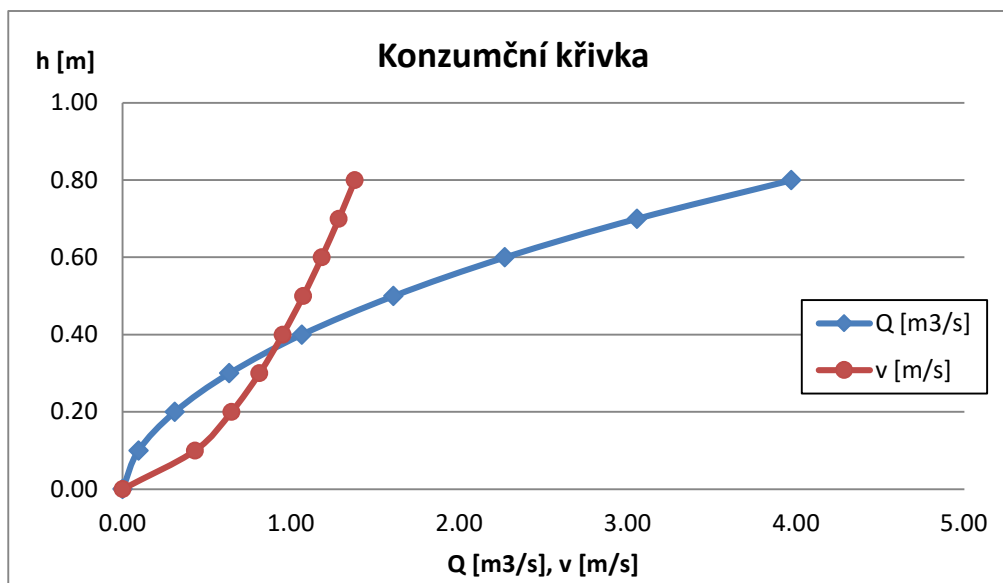
h	S	O	R	C	v	Q <sub>vyp</sub>
(m)	(m <sup>2</sup> )	(m)	(m)	-	(m/s)	(m <sup>3</sup> /s)
0.00	0.00	0.00	0.00	0.00	0.00	0.000
0.10	0.22	2.45	0.090	20.282	0.430	0.095
0.20	0.48	2.89	0.166	22.461	0.647	0.310
0.30	0.78	3.34	0.233	23.778	0.812	0.634
0.40	1.12	3.79	0.296	24.733	0.951	1.065
0.50	1.50	4.24	0.354	25.488	1.072	1.609
0.60	1.92	4.68	0.410	26.118	1.183	2.270
0.70	2.38	5.13	0.464	26.662	1.284	3.056
0.80	2.88	5.58	0.516	27.142	1.379	3.972
<b>Qkap</b>	<b>0.32</b>	<b>0.84</b>	<b>0.245</b>	<b>23.963</b>	<b>0.838</b>	<b>0.701</b>

Výpočet stability příkopu

$$v_v = 5,556 \cdot h^{1/6} \cdot d_e^{1/3}$$

$$\tau_k = 0,7753 \cdot \rho \cdot d_e$$

h	R	v	v <sub>v</sub>	τ	τ <sub>k</sub>	posuzení stability (návrhový průtok)	
(m)	(m)	(m/s)	(m/s)	(Pa)	(Pa)		
0.20	0.166	0.647	1.972	8.134	77.530		
0.30	0.233	0.812	2.110	11.449	77.530		
0.40	0.296	0.951	2.214	14.499	77.530		
0.50	0.354	1.072	2.298	17.369	77.530		
0.60	0.410	1.183	2.368	20.109	77.530		
0.70	0.464	1.284	2.430	22.754	77.530		
0.80	0.516	1.379	2.485	25.327	77.530	v < v <sub>v</sub>	τ < τ <sub>k</sub>
<b>0.317</b>	<b>0.245</b>	<b>0.838</b>	<b>2.130</b>	<b>11.994</b>	<b>77.530</b>	<b>OK</b>	<b>OK</b>



# PEO36

## maximální sklon (příkopová část)

Výpočet kapacity příkopu

$Q_N = 0.70 \text{ m}^3/\text{s}$

$$Q = S \cdot v$$

$$R = S/O$$

$$c = 1/n \cdot R^{1/6}$$

$$v = c \cdot (R \cdot I)^{1/2}$$

$$n = (O_1 \cdot n_1^{1.5} + \dots + O_i \cdot n_i^{1.5})^{2/3} / O^{2/3}$$

š.dno= 2.00 m

n= 0.033

I= 0.05000

sklony 2.00

d<sub>e</sub>= 0.10000

I= 5.00 %

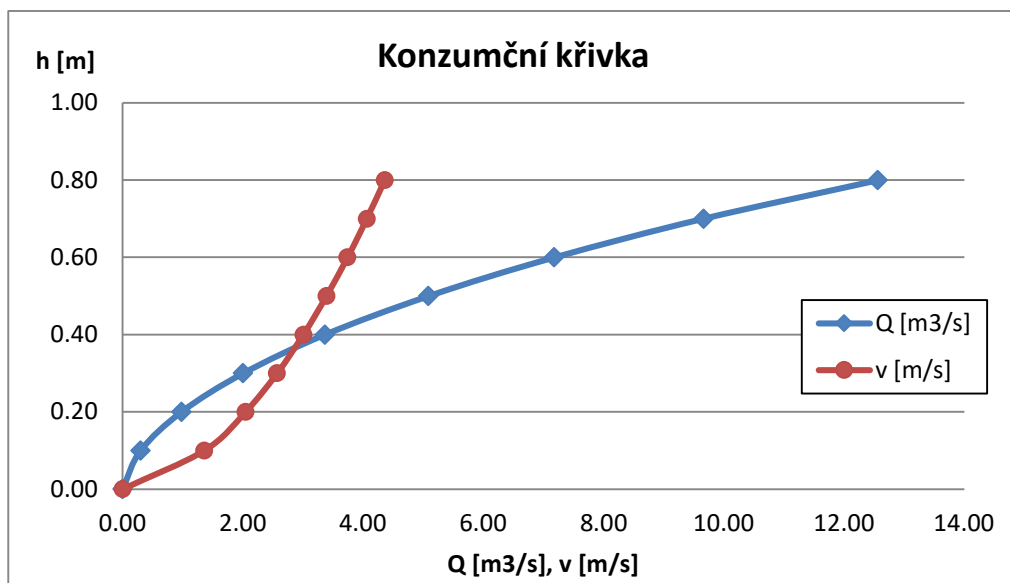
h	S	O	R	C	v	Q <sub>vyp</sub>
(m)	(m <sup>2</sup> )	(m)	(m)	-	(m/s)	(m <sup>3</sup> /s)
0.00	0.00	0.00	0.00	0.00	0.00	0.000
0.10	0.22	2.45	0.090	20.282	1.360	0.299
0.20	0.48	2.89	0.166	22.461	2.045	0.982
0.30	0.78	3.34	0.233	23.778	2.569	2.004
0.40	1.12	3.79	0.296	24.733	3.007	3.368
0.50	1.50	4.24	0.354	25.488	3.391	5.087
0.60	1.92	4.68	0.410	26.118	3.739	7.180
0.70	2.38	5.13	0.464	26.662	4.061	9.664
0.80	2.88	5.58	0.516	27.142	4.361	12.560
<b>Qkap</b>	<b>0.16</b>	<b>0.38</b>	<b>0.140</b>	<b>21.838</b>	<b>1.828</b>	<b>0.700</b>

Výpočet stability příkopu

$$v_v = 5,556 \cdot h^{1/6} \cdot d_e^{1/3}$$

$$\tau_k = 0,7753 \cdot \rho \cdot d_e$$

h	R	v	v <sub>v</sub>	τ	τ <sub>k</sub>	posuzení stability (návrhový průtok)	
(m)	(m)	(m/s)	(m/s)	(Pa)	(Pa)		
0.20	0.166	2.045	1.972	81.343	77.530		
0.30	0.233	2.569	2.110	114.492	77.530		
0.40	0.296	3.007	2.214	144.994	77.530		
0.50	0.354	3.391	2.298	173.687	77.530		
0.60	0.410	3.739	2.368	201.090	77.530		
0.70	0.464	4.061	2.430	227.539	77.530		
0.80	0.516	4.361	2.485	253.265	77.530	v < v <sub>v</sub>	τ < τ <sub>k</sub>
0.165	0.140	1.828	1.909	68.706	77.530	OK	OK



# PEO36

## minimální sklon (průlehová část)

Výpočet kapacity příkopu

$Q_N = 0.70 \text{ m}^3/\text{s}$

$$Q = S \cdot v$$

$$R = S/O$$

$$c = 1/n \cdot R^{1/6}$$

$$v = c \cdot (R \cdot I)^{1/2}$$

$$n = (O_1 \cdot n_1^{1.5} + \dots + O_i \cdot n_i^{1.5})^{2/3} / O^{2/3}$$

š.dno= 2.00 m

n= 0.033

I= 0.00500

sklony 9.00

d<sub>e</sub>= 0.10000

I= 0.50 %

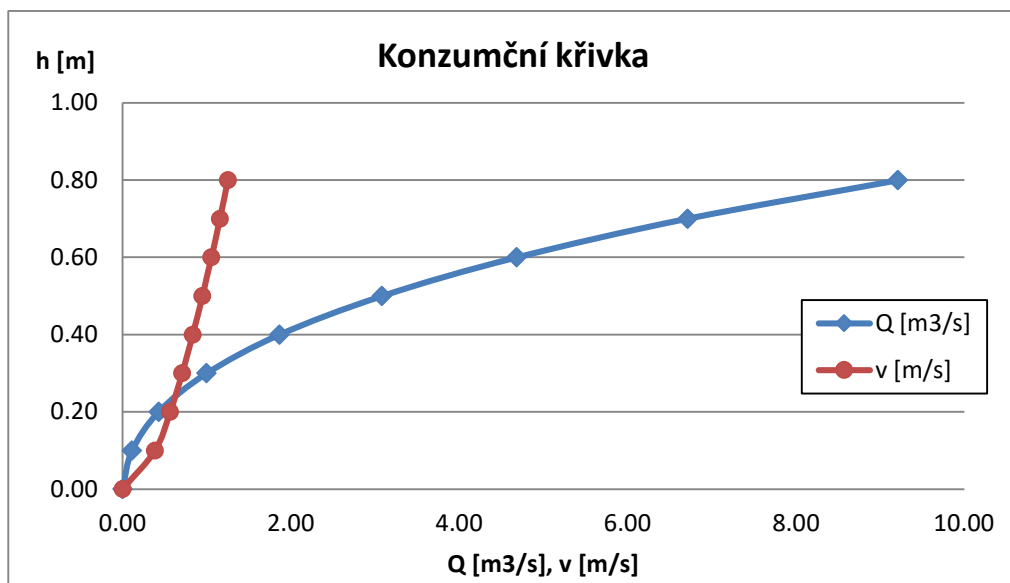
h	S	O	R	C	v	Q <sub>vyp</sub>
(m)	(m <sup>2</sup> )	(m)	(m)	-	(m/s)	(m <sup>3</sup> /s)
0.00	0.00	0.00	0.00	0.00	0.00	0.000
0.10	0.29	3.81	0.076	19.726	0.385	0.112
0.20	0.76	5.62	0.135	21.709	0.564	0.429
0.30	1.41	7.43	0.190	22.970	0.707	0.997
0.40	2.24	9.24	0.242	23.927	0.833	1.866
0.50	3.25	11.06	0.294	24.710	0.947	3.079
0.60	4.44	12.87	0.345	25.379	1.054	4.681
0.70	5.81	14.68	0.396	25.966	1.155	6.712
0.80	7.36	16.49	0.446	26.491	1.252	9.211
<b>Qkap</b>	<b>0.25</b>	<b>1.09</b>	<b>6.60</b>	<b>0.165</b>	<b>22.438</b>	<b>0.644</b>

Výpočet stability příkopu

$$v_v = 5,556 \cdot h^{1/6} \cdot d_e^{1/3}$$

$$\tau_k = 0,7753 \cdot \rho \cdot d_e$$

h	R	v	v <sub>v</sub>	τ	τ <sub>k</sub>	posuzení stability (návrhový průtok)	
(m)	(m)	(m/s)	(m/s)	(Pa)	(Pa)		
0.20	0.135	0.564	1.972	6.631	77.530		
0.30	0.190	0.707	2.110	9.304	77.530		
0.40	0.242	0.833	2.214	11.885	77.530		
0.50	0.294	0.947	2.298	14.419	77.530		
0.60	0.345	1.054	2.368	16.926	77.530		
0.70	0.396	1.155	2.430	19.416	77.530		
0.80	0.446	1.252	2.485	21.894	77.530	v < v <sub>v</sub>	τ < τ <sub>k</sub>
<b>0.254</b>	<b>0.165</b>	<b>0.644</b>	<b>2.052</b>	<b>8.083</b>	<b>77.530</b>	<b>OK</b>	<b>OK</b>



# PEO36

## maximální sklon (průlehová část)

Výpočet kapacity příkopu

$Q_N = 0.70 \text{ m}^3/\text{s}$

$$Q = S \cdot v$$

$$R = S/O$$

$$c = 1/n \cdot R^{1/6}$$

$$v = c \cdot (R \cdot I)^{1/2}$$

$$n = (O_1 \cdot n_1^{1.5} + \dots + O_i \cdot n_i^{1.5})^{2/3} / O^{2/3}$$

š.dno= 2.00 m

n= 0.033

I= 0.02000

sklony 9.00

d<sub>e</sub>= 0.10000

I= 2.00 %

h	S	O	R	C	v	Q <sub>vyp</sub>
(m)	(m <sup>2</sup> )	(m)	(m)	-	(m/s)	(m <sup>3</sup> /s)
0.00	0.00	0.00	0.00	0.00	0.00	0.000
0.10	0.29	3.81	0.076	19.726	0.770	0.223
0.20	0.76	5.62	0.135	21.709	1.129	0.858
0.30	1.41	7.43	0.190	22.970	1.415	1.995
0.40	2.24	9.24	0.242	23.927	1.666	3.731
0.50	3.25	11.06	0.294	24.710	1.895	6.158
0.60	4.44	12.87	0.345	25.379	2.108	9.361
0.70	5.81	14.68	0.396	25.966	2.310	13.423
0.80	7.36	16.49	0.446	26.491	2.503	18.422
<b>Q<sub>kap</sub></b>	<b>0.18</b>	<b>0.66</b>	<b>5.27</b>	<b>0.124</b>	<b>21.408</b>	<b>1.068</b>

Výpočet stability příkopu

$$v_v = 5,556 \cdot h^{1/6} \cdot d_e^{1/3}$$

$$\tau_k = 0,7753 \cdot \rho \cdot d_e$$

h	R	v	v <sub>v</sub>	τ	τ <sub>k</sub>	posuzení stability (návrhový průtok)	
(m)	(m)	(m/s)	(m/s)	(Pa)	(Pa)		
0.20	0.135	1.129	1.972	26.522	77.530		
0.30	0.190	1.415	2.110	37.217	77.530		
0.40	0.242	1.666	2.214	47.541	77.530		
0.50	0.294	1.895	2.298	57.678	77.530		
0.60	0.345	2.108	2.368	67.705	77.530		
0.70	0.396	2.310	2.430	77.664	77.530		
0.80	0.446	2.503	2.485	87.578	77.530	v < v <sub>v</sub>	τ < τ <sub>k</sub>
<b>0.181</b>	<b>0.124</b>	<b>1.068</b>	<b>1.939</b>	<b>24.393</b>	<b>77.530</b>	<b>OK</b>	<b>OK</b>

