Consequence Summary Report

Workspace: RNM

LANDIM_ACL_Rev_Jul2024

Study: 3600 s

Summary Basis

These tables will only report global values set in the parameters. Values that are modified in the study tree will not be reported.
The report is context sensitive, and filters up to the study level. You will need to generate multiple summary reports if you have multiple studies in your workspace.
The results in this report are from the non-CFD calculations only.

Discharge Results (after atmospheric expansion)

Path	Scenario	Weather	Peak Flowrate [kg/s]	Temperature [degC]	Liquid mass fraction in material [fraction]	Droplet diameter [um]	Expanded diameter [m]	Velocity [m/s]	End time of release [s]
3600 s\9_Rotura Catastrófica TK.3.233.1 com etanol		2.0/F		24,994	1	10000		2,16921	
		3.4/E		24,994	1	10000		2,16921	
		4.3/D		24,994	1	10000		2,16921	
3600 s\10_Rotura	Leak	2.0/F	56,8064	24,9882	1	1000,73	0,0774597	15,3388	1394,56

100mm TK.3.233.1 com etanol									
		3.4/E	56,8064	24,9882	1	963,325	0,0774597	15,3388	1394,56
		4.3/D	56,8064	24,9882	1	983,591	0,0774597	15,3388	1394,56
3600 s\11_Rotura 10mm TK.3.233.1 com etanol		2.0/F	0,568064	24,9882	1	1000,73	0,00774597	15,3388	3600
		3.4/E	0,568064	24,9882	1	963,325	0,00774597	15,3388	3600
		4.3/D	0,568064	24,9882	1	983,591	0,00774597	15,3388	3600
3600 s\12_Rotura Catastrófica TK.3.249.1 com isohexano	Catastrophic rupture	2.0/F		24,9916	1	10000		1,96591	
		3.4/E		24,9916	1	10000		1,96591	
		4.3/D		24,9916	1	10000		1,96591	
3600 s\13_Rotura 100mm TK.3.24	Leak	2.0/F	47,3234	24,9809	1	869,743	0,0787401	14,814	855,813

9.1 com isohexano									
		3.4/E	47,3234	24,9809	1	837,238	0,0787401	14,814	855,813
		4.3/D	47,3234	24,9809	1	854,851	0,0787401	14,814	855,813
3600 s\14_Rotura 10mm TK.3.249.1 com isohexano		2.0/F	0,473234	24,9809	1	869,743	0,00787401	14,814	3600
		3.4/E	0,473234	24,9809	1	837,238	0,00787401	14,814	3600
		4.3/D	0,473234	24,9809	1	854,851	0,00787401	14,814	3600
3600 s\62 - Rotura de IBC com octoato de manganês 10%	Catastrophic rupture	2.0/F		24,9991	1	10000		0,667354	
		3.4/E		24,9991	1	10000		0,667354	
		4.3/D		24,9991	1	10000		0,667354	
3600 s\63 - Rotura de IBC com		2.0/F		24,9996	1	10000	0	0,735185	

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		3.4/E		24,9996	1	10000	0	0,735185	
		4.3/D		24,9996	1	10000	0	0,735185	

Dispersion Results

Input dispersion parameters

Core averaging time	18,75	s
Flammable averaging time	18,75	s
Toxic averaging time	600	s
Height of interest	0	m

Distance downwind to minimum defined concentration

The reported concentration of interest is defined at the scenario

Path	Scenario	Weather	Material	Material to track	Minimum concentration of interest [ppm]	Averaging time used for concentration of interest [s]	Distance downwind to minimum concentration of interest [m]

Distance downwind to flammable concentrations

Path	Scenario	Weather	Distance to UFL [m]	Distance to LFL [m]	Distance to LFL fraction [m]
3600 s\9_Rotura Catastrófica TK.3.233.1 com etanol		2.0/F	3,02494	4,08865	6,92845
		3.4/E	3,17108	4,85949	9,65394
		4.3/D	3,29003	5,74273	11,0204
3600 s\10_Rotura 100mm TK.3.233.1 com etanol	Leak	2.0/F	3,70705	7,87887	13,6446
		3.4/E	3,4705	7,46403	13,6204

		4.3/D	3,32948	7,3288	12,8929
3600 s\11_Rotura 10mm TK.3.233.1 com etanol		2.0/F	0,895481	2,68825	5,21068
		3.4/E	1,57763	2,34332	2,57922
		4.3/D	1,64595	2,20889	2,38382
3600 s\12_Rotura Catastrófica TK.3.249.1 com isohexano	Catastrophic rupture	2.0/F	7,10952	16,1691	21,3086
		3.4/E	6,39545	16,1799	22,5793
		4.3/D	7,16932	19,155	26,872
3600 s\13_Rotura 100mm TK.3.249.1 com isohexano	Leak	2.0/F	12,4037	32,4095	42,6657
		3.4/E	9,13664	22,682	32,1257
		4.3/D	9,01212	23,2112	33,278
3600 s\14_Rotura 10mm TK.3.249.1 com isohexano		2.0/F	2,0236	8,473	13,3308
		3.4/E	1,87642	5,61841	9,71252
		4.3/D	1,81697	5,2182	9,22253
3600 s\62 - Rotura de IBC com octoato de manganês 10%	Catastrophic rupture	2.0/F	0,848992	2,0848	2,81836
		3.4/E	0,98355	2,52469	3,74708
		4.3/D	1,21243	3,61482	5,33504

Outdoor Toxic Results

Distance downwind to defined concentrations

The reported concentrations are defined in the respective material properties

Path	Scenario	Weather	Distance downwind to ERPG1 (3600 s) [m]	Distance downwind to ERPG2 (3600 s) [m]	Distance downwind to ERPG3 (3600 s) [m]	Distance downwind to STEL (900 s) [m]	Distance downwind to IDLH (1800 s) [m]
3600 s\61_Warehouse	Doors closed - 20 m2 / 1800 s	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
	Doors closed - 50 m2 / 1800 s	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
	Doors closed - 100 m2 / 1800 s	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
	Doors closed - 300 m2 / 1800 s	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a

		4.3/D	n/a	n/a	n/a	n/a	n/a
	Doors open - 20 m2 / 1800 s	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
	Doors open - 50 m2 / 1800 s	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
	Doors open - 100 m2 / 1800 s	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
	Doors open - 300 m2 / 1800 s	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
	Doors open - 900 m2 / 1800 s	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
3600 s\15a_Dispe	User defined	2.0/F	n/a	n/a	n/a	n/a	n/a

rsão nuvem tóxica incendio armazém automático	source_a						
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
3600 s\15b_Dispersão nuvem tóxica incendio armazém automático	User defined source_b	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
3600 s\15c_Dispersão nuvem tóxica incendio armazém automático	User defined source_c	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a
3600 s\15d_Dispersão nuvem tóxica incendio armazém automático	User defined source_d	2.0/F	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a

Distance downwind to defined dangerous doses

The reported dangerous doses are defined in the respective material properties

Path	Scenario	Weather	Distance downwind to dangerous toxic load [m]	Distance downwind to dangerous dose 2 [m]	Distance downwind to dangerous dose 3 [m]
3600 s\15a_Dispersão nuvem tóxica incendio armazém automático	User defined source_a	2.0/F	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a
3600 s\15b_Dispersão nuvem tóxica incendio armazém automático	User defined source_b	2.0/F	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a
3600 s\15c_Dispersão nuvem tóxica incendio armazém automático	User defined source_c	2.0/F	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a
3600 s\15d_Dispersão nuvem tóxica incendio armazém automático	User defined source_d	2.0/F	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a
		4.3/D	1079,62	n/a	n/a

Exposure duration at defined dangerous doses

The reported dangerous doses are defined in the respective material properties

Path	Scenario	Weather	Exposure duration for dangerous toxic load [s]	Exposure duration for dangerous dose 2 [s]	Exposure duration for dangerous dose 3 [s]	Exposure duration for dangerous dose 4 [s]	Exposure duration for dangerous dose 5 [s]	Exposure duration for dangerous dose 6 [s]
3600 s\15a_Dispersão nuvem tóxica incendio armazém automático	User defined source_a	2.0/F	n/a	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a	n/a
3600 s\15b_Dispersão nuvem tóxica incendio armazém automático	User defined source_b	2.0/F	n/a	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a	n/a
3600 s\15c_Dispersão	User defined	2.0/F	n/a	n/a	n/a	n/a	n/a	n/a

nuvem tóxica incendio armazém automático	source_c							
		3.4/E	n/a	n/a	n/a	n/a	n/a	n/a
		4.3/D	n/a	n/a	n/a	n/a	n/a	n/a
3600 s\15d_Dispersão nuvem tóxica incendio armazém automático	User defined source_d	2.0/F	n/a	n/a	n/a	n/a	n/a	n/a
		3.4/E	n/a	n/a	n/a	n/a	n/a	n/a
		4.3/D	3240	n/a	n/a	n/a	n/a	n/a

Jet Fire Results

Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Flame length [m]	Distance downwind to intensity level 1 (37,5 kW/m2) [m]	Distance downwind to intensity level 2 (12,5 kW/m2) [m]	Distance downwind to intensity level 3 (7 kW/m2) [m]	Distance downwind to intensity level 4 (5 kW/m2) [m]	Distance downwind to intensity level 5 (3 kW/m2) [m]
3600 s\10_Rotura 100mm TK.3.233.1 com etanol		2.0/F	18,2804	Not reached at height of interest	19,7367	20,9829	22,7316	25,6514
		3.4/E	16,1545	Not reached at height of interest	17,5738	20,127	21,7994	24,6187
		4.3/D	15,3687	16,7166	17,2868	19,7887	21,3801	24,1274
3600 s\11_Rotura 10mm TK.3.233.1 com etanol		2.0/F	4,55861	Not reached at height of interest	5,10983	5,10983	5,10983	5,76345
		3.4/E	4,00789	Not reached at height of interest	4,48575	4,48575	4,86626	5,48941
		4.3/D	3,745	Not	4,18653	4,34425	4,69814	5,29105

			05	reached at height of interest				
3600 s\13_Rotura 100mm TK.3.249.1 com isohexano		2.0/F	29,9416	32,8585	42,5988	49,0707	53,494	61,4555
		3.4/E	26,3879	31,3203	40,8106	47,2278	51,6833	59,7889
		4.3/D	25,0428	30,8628	39,8672	46,1527	50,5383	58,531
3600 s\14_Rotura 10mm TK.3.249.1 com isohexano		2.0/F	6,87867	7,71711	8,74996	10,0558	10,9254	12,4723
		3.4/E	6,0388	6,76507	8,32388	9,57431	10,4316	11,971
		4.3/D	5,63748	6,30828	8,00973	9,2117	10,036	11,5283

Early Pool Fire Results

Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Pool diameter [m]	Distance downwind to intensity level 1 (37,5 kW/m2) [m]	Distance downwind to intensity level 2 (12,5 kW/m2) [m]	Distance downwind to intensity level 3 (7 kW/m2) [m]	Distance downwind to intensity level 4 (5 kW/m2) [m]	Distance downwind to intensity level 5 (3 kW/m2) [m]
3600 s\10_Rotura 100mm TK.3.233.1 com etanol		2.0/F	14,971	8,48551	19,9713	25,5612	29,1163	35,639
		3.4/E	14,9718	8,58865	21,2666	26,0524	29,7035	36,0772
		4.3/D	14,9699	8,55759	21,6773	26,4419	29,9682	36,1168
3600 s\11_Rotura 10mm TK.3.233.1 com etanol		2.0/F	5,3869	5,01692	9,42688	11,8807	13,3104	15,8555
		3.4/E	5,4643	5,03971	10,2763	12,3146	13,7165	16,2487
		4.3/D	5,42277	5,04305	10,4938	12,399	13,8454	16,2591
3600 s\13_Rotura 100mm TK.3.24		2.0/F	14,9697	13,0627	21,3987	29,2772	34,83	44,3367

9.1 com isohexano								
		3.4/E	14,9782	13,7206	21,9515	30,8205	36,3012	44,9398
		4.3/D	14,9702	14,1988	22,1214	31,1852	36,7512	45,1042
3600 s\14_Rotura 10mm TK.3.249.1 com isohexano		2.0/F	2,26977	4,77033	10,4223	13,066	14,6587	17,7252
		3.4/E	2,33011	5,31324	11,3166	13,588	15,2578	18,0993
		4.3/D	2,29685	5,42718	11,6199	13,8821	15,4658	18,1749

Late Pool Fire Results

Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Pool diameter [m]	Distance downwind to intensity level 1 (37,5 kW/m2) [m]	Distance downwind to intensity level 2 (12,5 kW/m2) [m]	Distance downwind to intensity level 3 (7 kW/m2) [m]	Distance downwind to intensity level 4 (5 kW/m2) [m]	Distance downwind to intensity level 5 (3 kW/m2) [m]
3600 s\9_Rotura Catastrófica TK.3.233.1 com etanol		2.0/F	14,9697	8,48483	19,9696	25,5591	29,114	35,6361
		3.4/E	14,9697	8,58736	21,2639	26,049	29,6996	36,0725
		4.3/D	14,9697	8,55749	21,6771	26,4417	29,9679	36,1164
3600 s\10_Rotura 100mm TK.3.233.1 com etanol	Leak	2.0/F	14,971	8,48551	19,9713	25,5612	29,1163	35,639
		3.4/E	14,9718	8,58865	21,2666	26,0524	29,7035	36,0772
		4.3/D	14,9699	8,55759	21,6773	26,4419	29,9682	36,1168
3600 s\11_Ro		2.0/F	14,9699	8,48493	19,9699	25,5594	29,1143	35,6365

tura 10mm TK.3.23 3.1 com etanol								
		3.4/E	14,97	8,58756	21,2643	26,0495	29,7002	36,0732
		4.3/D	14,972 4	8,55923	21,6806	26,4458	29,9726	36,1222
3600 s\12_Rotura Catastrófica TK.3.249.1 com isohexano	Catastrophic rupture	2.0/F	14,969 7	13,0626	21,3987	29,2772	34,83	44,3367
		3.4/E	14,970 3	13,7147	21,9464	30,8167	36,2959	44,9317
		4.3/D	14,970 4	14,199	22,1216	31,1853	36,7513	45,1044
3600 s\13_Rotura 100mm TK.3.249.1 com isohexano	Leak	2.0/F	14,969 7	13,0627	21,3987	29,2772	34,83	44,3367
		3.4/E	14,978 2	13,7206	21,9515	30,8205	36,3012	44,9398
		4.3/D	14,970 2	14,1988	22,1214	31,1852	36,7512	45,1042
3600 s\14_Rotura 10mm TK.3.249.1 com isohexa		2.0/F	13,990 7	12,7965	21,1435	29,085	34,5538	43,7893

no								
		3.4/E	13,8342	13,421	21,8467	30,8252	36,0513	44,2757
		4.3/D	12,6342	13,515	22,0457	31,4382	36,2883	43,7006
3600 s\62 - Rotura de IBC com octoato de manganês 10%	Catastrophic rupture	2.0/F	5,58606	4,88346	14,471	19,6021	22,6405	27,7658
		3.4/E	5,54793	5,65668	16,4159	20,6248	23,3741	28,5134
		4.3/D	5,55797	5,92597	17,3334	21,3273	24,2039	29,1689

Flash Fire Results

Distance downwind to defined concentrations

The reported LFL and LFL fraction are defined in the respective material property

Path	Scenario	Weather	Distance downwind to LFL [m]	Distance downwind to LFL Fraction [m]
3600 s\9_Rotura Catastrófica TK.3.233.1 com etanol		2.0/F	4,08865	6,92845
		3.4/E	4,85949	9,65394
		4.3/D	5,74273	11,0204
3600 s\10_Rotura 100mm TK.3.233.1 com etanol	Leak	2.0/F	7,87887	13,6446
		3.4/E	7,46403	13,6204
		4.3/D	7,3288	12,8929
3600 s\11_Rotura 10mm TK.3.233.1 com etanol		2.0/F	2,68825	5,21068
		3.4/E	2,34332	2,57922
		4.3/D	2,20889	2,38382
3600 s\12_Rotura Catastrófica TK.3.249.1 com isohexano	Catastrophic rupture	2.0/F	16,1691	21,3086
		3.4/E	16,1799	22,5793
		4.3/D	19,155	26,872
3600 s\13_Rotura 100mm	Leak	2.0/F	32,4095	42,6657

TK.3.249.1 com isohexano				
		3.4/E	22,682	32,1257
		4.3/D	23,2112	33,278
3600 s\14_Rotura 10mm TK.3.249.1 com isohexano		2.0/F	8,473	13,3308
		3.4/E	5,61841	9,71252
		4.3/D	5,2182	9,22253
3600 s\62 - Rotura de IBC com octoato de manganês 10%	Catastrophic rupture	2.0/F	2,0848	2,81836
		3.4/E	2,52469	3,74708
		4.3/D	3,61482	5,33504

Maximum distance to LFL fraction at any height

Path	Scenario	Weather	Max flash fire distance [m]	Height of the max flash fire distance [m]	Time [s]
3600 s\9_Rotura Catastrófica TK.3.233.1 com etanol		2.0/F	6,87984	0	5,76953
		3.4/E	9,58049	0	5,82287
		4.3/D	10,7747	0	3,98691
3600 s\10_Rotura 100mm TK.3.233.1 com etanol	Leak	2.0/F	13,5854	0	110,456
		3.4/E	13,5189	0	15,9035

		4.3/D	12,7713	0	5,58581
3600 s\11_Rotura 10mm TK.3.233.1 com etanol		2.0/F	5,10997	0	1798,44
		3.4/E	2,31852	0,0687831	1797,4
		4.3/D	2,52271	0,0774805	3,47659
3600 s\12_Rotura Catastrófica TK.3.249.1 com isohexano	Catastrophic rupture	2.0/F	21,244	0	16,8383
		3.4/E	21,415	0	9,00801
		4.3/D	26,2558	0	8,81342
3600 s\13_Rotura 100mm TK.3.249.1 com isohexano	Leak	2.0/F	42,6799	0	522,997
		3.4/E	32,1841	0	427,906
		4.3/D	33,271	0	427,906
3600 s\14_Rotura 10mm TK.3.249.1 com isohexano		2.0/F	13,2774	0	3563,37
		3.4/E	9,73672	0	1798,91
		4.3/D	9,22417	0	1997,44
3600 s\62 - Rotura de IBC com octoato de manganês 10%	Catastrophic rupture	2.0/F	2,7568	0	2,90031
		3.4/E	3,54914	0	2,05688
		4.3/D	5,08407	0	2,05688

Explosion Results

Explosion scenarios for worst-case maximum downwind distance to defined overpressures.

These results are produced during the consequence run and depend on the precise setting of the scenario. These results may be quite different to the explosion results calculated during the risk or effects modelling as these will depend on the obstructed regions defined on the map.

The reported overpressures are defined in the explosion parameters

Path	Scenario	Weather	Overpressure level [bar]	Maximum distance [m]	Diameter [m]
3600 s\9_Rotura Catastrófica TK.3.233.1 com etanol			0,3 0,14 0,05 0,03	No hazard No hazard No hazard No hazard	0 0 0 0
3600 s\10_Rotura 100mm TK.3.233.1 com etanol	Leak	2.0/F	0,3 0,14 0,05 0,03	13,5782 16,8369 26,7514 36,5396	7,15639 13,6738 33,5029 53,0792
		3.4/E	0,3 0,14 0,05 0,03	12,7194 15,196 22,7311 30,1701	5,43885 10,3921 25,4622 40,3402
		4.3/D	0,3 0,14 0,05 0,03	12,5535 14,8791 21,9545 28,9397	5,10708 9,75815 23,909 37,8794
3600 s\12_Rotura Catastrófica TK.3.249.1 com isohexano	Catastrophic rupture	2.0/F	0,3 0,14 0,05 0,03	34,4475 47,6049 87,6363 127,157	28,8949 55,2098 135,273 214,315
		3.4/E	0,3 0,14 0,05	31,5548 42,078 87,8036	23,1097 44,1559 155,607

			0,03	133,266	246,531
		4.3/D	0,3 0,14 0,05 0,03	35,023 48,7045 90,3306 132,782	30,0459 57,409 140,661 245,564
3600 s\13_Rotura 100mm TK.3.249.1 com isohexano	Leak	2.0/F	0,3 0,14 0,05 0,03	63,637 85,1634 150,657 215,317	47,274 90,3269 221,315 350,633
		3.4/E	0,3 0,14 0,05 0,03	46,451 61,433 107,016 152,018	32,902 62,8661 154,032 244,035
		4.3/D	0,3 0,14 0,05 0,03	44,5322 57,7668 98,033 137,786	29,0644 55,5336 136,066 215,572
3600 s\14_Rotura 10mm TK.3.249.1 com isohexano		2.0/F	0,3 0,14 0,05 0,03	16,94 23,2603 42,4898 61,4743	13,88 26,5206 64,9797 102,949

Supplementary data for worst-case explosion scenarios

Path	Scenario	Weather	Overpressure level [bar]	Explosion flammable mass [kg]	Ignition time [s]	Ignition source [m]	Cloud centre [m]	Explosion centre [m]
3600 s\9_Rotura Catastrófica TK.3.23			0,3 0,14 0,05 0,03	0	0 0 0 0	No hazard No hazard No hazard	No hazard No hazard	0 0 0 0

3.1 com etanol						No hazard	No hazard No hazard	
3600 s\10_Rotura 100mm TK.3.233.1 com etanol	Leak	2.0/F	0,3 0,14 0,05 0,03	0,132619 0,132619 0,132619 0,132619	7,2877 7,2877 7,2877 7,287	10 10 10 10	5,85362 5,85362 5,85362 5,85362	10 10 10 10
		3.4/E	0,3 0,14 0,05 0,03	0,0582166 0,0582166 0,0582166 0,0582166	3,43503 3,43503 3,43503 3,43503	10 10 10 10	4,92736 4,92736 4,92736 4,92736	10 10 10 10
		4.3/D	0,3 0,14 0,05 0,03	0,0481996 0,0481996 0,0481996 0,0481996	2,74137 2,74137 2,74137 2,74137	10 10 10 10	4,80612 4,80612 4,80612 4,80612	10 10 10 10
3600 s\12_Rotura Catastrófica TK.3.249.1 com isohexano	Catastrophic rupture	2.0/F	0,3 0,14 0,05 0,03	5,231185,231185,231185,23118	12,60412,60412,60412,604	20 20 20 20	2,60868 2,60868 2,60868 2,60868	20 20 20 20
		3.4/E	0,3 0,14	2,6762 2,6762	7,69616	20 20	11,0275	20 20

			0,05 0,03	7,96268 7,96268	7,69616 1,65528 1,65528	10 10	11,0275 2,49329 2,49329	10 10
		4.3/D	0,3 0,14 0,05 0,03	5,88156 5,88156 5,88156 7,8693	4,72502 4,72502 4,72502 1,35056	20 20 20 10	10,4026 10,4026 10,4026 3,14697	20 20 20 10
3600 s\13_Rotura 100mm TK.3.249.1 com isohexano	Leak	2.0/F	0,3 0,14 0,05 0,03	22,9088 22,9088 22,9088 22,9088	100,47 100,47 100,47 100,47	40 40 40 40	17,0823 17,0823 17,0823 17,0823	40 40 40 40
		3.4/E	0,3 0,14 0,05 0,03	7,72327 7,72327 7,72327 7,72327	40,885 40,885 40,885 40,885	30 30 30 30	12,5773 12,5773 12,5773 12,5773	30 30 30 30
		4.3/D	0,3 0,14 0,05 0,03	5,32377 5,32377 5,32377 5,32377	22,5145 22,5145 22,5145 22,5145	30 30 30 30	12,5909 12,5909 12,5909 12,5909	30 30 30 30
3600 s\14_Rotura		2.0/F	0,3 0,14 0,05	0,579834 0,57983	289,899 289,89	10 10 10	4,34031 4,340	10 10 10

10mm TK.3.249.1 com isohexano			0,03	4 0,579834 0,579834	9 289,899 289,899	10	31 4,34031 4,34031	10