

Figure 1**Effect of X-SBR loading in NRL on burst and tensile properties**

X-SBR Loading (pphr)	Condom thickness (μm)	Burst volume (dm^3)	Burst pressure (kPa)	Tensile strength (MPa)	Elongation-at-break (%)
1	65	35	1.6	35	880
1	54	32	1.3	31	854
1	43	32	1.0	32	882
2	69	35	1.8	35	865
2	56	31	1.4	31	853
2	46	33	1.1	31	878
4	68	31	2.0	33	836
4	58	29	1.7	34	844
4	45	28	1.1	32	848
5	69	34	1.9	35	890
5	64	31	1.6	37	880
5	54	29	1.3	34	880
10	55	19	1.4	33	890
10	54	22	1.5	28	830
10	54	22	1.6	28	825

Where: X-SBR = Litex® S21C, PolymerLatex GmbH
 pphr = parts per hundred rubber
 condom thickness = single-wall thickness measured at mid-body

Figure 2

Effect of NRL condom wall-thickness on burst and tensile properties

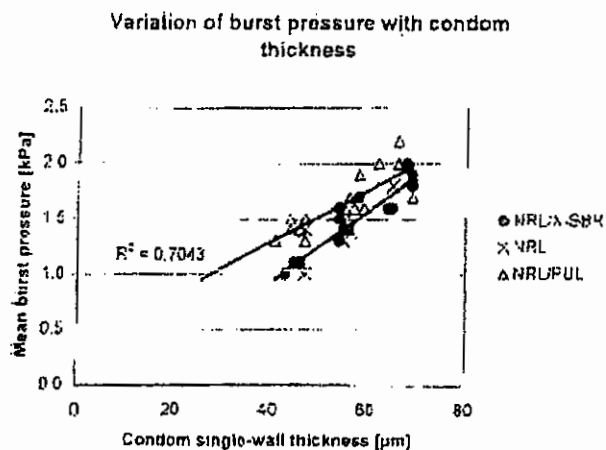
Condom thickness (μm)	Burst volume (dm^3)	Burst pressure (kPa)	Tensile strength (MPa)	Elongation- at-break (%)
65	55	1.8	31	900
55	45	1.3	32	895
56	51	1.4	28	895
47	47	1.4	31	925
47	41	1.0	30	920
46	48	1.1	30	895

Where: pp/hr = parts per hundred rubber
condom thickness = single-wall thickness measured at mid-body

Figure 3**Effect of PUL loading in NRL on burst and tensile properties**

PUL loading (pphr)	Condom thickness (μm)	Burst volume (dm^3)	Burst pressure (kPa)	Tensile strength (MPa)	Elongation-at-break (%)
5	69	47	1.9	31	900
5	69	46	1.7	32	905
5	66	46	2.0	25	824
5	59	47	1.6	35	920
5	56	44	1.5	33	900
5	55	43	1.6	27	835
5	47	42	1.3	27	850
10	62	43	2.0	25	832
10	57	42	1.6	29	845
10	56	40	1.7	31	890
10	55	38	1.6	22	766
10	46	37	1.4	24	820
15	66	40	2.2	19	738
15	58	36	1.9	19	734
15	47	35	1.5	20	754
20	44	31	1.5	22	769
20	44	26	1.4	22	751
20	41	29	1.3	22	768
Incorez® W385/092					
7.5	44	35	1.4	25	796

Where: PUL = Acralen® U900, PolymerLatex GmbH
pphr = parts per hundred rubber
condom thickness = single-wall thickness measured at mid-body

Figure 4**Variation of burst pressure with condom thickness**

The data are taken from Figure 1 (NRL/X-SBR), Figure 2 (NRL) and Figure 3 (NRL/PUL). The least square fits for the NRL and NRL/X-SBR data overlap and only begin to diverge at low thickness/burst pressure values.