WEATHER BALLOONS

METEOROLOGICAL & EDUCATIONAL BALLOONS

APPLICATIONS

- meteorological research
- weather research
- weather pattern observations
- current condition diagnosis
- educational programs/projects
- aviation observations
- pollution monitoring
- photography
- videography

TOTEX Corporation commenced the manufacturing of meteorological balloons in 1937. The company devised the mold rotation system of manufacturing meteorological balloons in 1940 and continues to manufacture its products today employing the same process. The mold containing the latex mixture is rotated to form multilayered and extremely thin film to produce a strong and uniform thickness and form maximum performance balloons. The system is prominent in producing quality balloons, although it calls for an increase of production cost.

TOTEX meteorological balloons are available in two different types:

TA Type Balloons
The TA type was developed in 1940 and is made from natural rubber latex compounded with chemicals. It has a high elasticity modulus as well as high tear resistance. The robustness of rubber film allows fully gas inflated TA type balloons to retain its original spherical shape, making it particularly suitable for all weather purpose.

TX Type Balloons
The TX Type was first developed in 1988 and research continues in seeking a special latex compound with other chemicals in order to reach even in severe weather conditions the tropopause where temperature is lower than – 75 degrees celcius and altitudes exceed 10 hPa.

ISO 9001 CERTIFIED

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TOTEX WEATHER BALLOON
Specifications

Pilot & Ceiling Balloons

Reference	KCI 10	KCI 20	KCI 30	KCI 100
Color	red	red or uncolored		
Average Weight (gr)	10	20	30	100
Neck Diameter (cm)	2.3 +- 0.3	1.4 +- 0.3	1.4 +-0 3	1.4 +- 0.3
Neck Length (cm)	5.0 +- 1.0	8.0 +-2.0	8.0 +-2.0	8.0 +- 2.0
Flaccid Body Length (cm)	13	24	28	53
Barely Inflated Diameter (cm)	8	15	18	34
Payload (gr)	0	0	0	0
Recommended Free Lift (gr)	4.4	29.8	59	294
Nozzle Lift (gr)	4.4	29.8	59	294
Gross Lift (gr)	14.4	49.8	89	394
Diameter at Release (cm)	29	44	53	87
Volume at Release (cu. m)	0.01	0.04	0.08	0.34
Rate of Ascent (m/min)	60	120	150	250
Diameter at Burst (cm)	45	70	88	196
Bursting Altitude (km)	11 8	12.4	13.1	18.8
Bursting Pressure (hPa)	199.5	181.5	162.5	66.2

Sounding Balloons

Reference	KCI 200	KCI 300	KCI 350	KCI 450	KCI 500	KCI 600	KCI 700	KCI 800	KCI 1000	KCI 1200	KCI 1500	KCI 2000	KCI 3000
Color	uncolored / natural												
Average Weight (gr)	200	300	350	450	500	600	700	800	1000	1200	1500	2000	3000
Neck Diameter (cm)	3	3	3	3	3	3	3	3	3	3	3	5	5
Neck Length (cm)	12	12	12	12	12	12	12	12	12	12	12	18	18
Flaccid Body Length more(cm)	86	108	118	125	143	157	171	184	206	226	253	289	357
Barely Inflated Diameter more(cm)	55	69	75	86	91	100	109	117	131	144	161	184	227
Payload (gr)	250	250	250	250	250	250	250	250	250	1050	1050	1050	1050
Recommended Free Lift (gr)	510	560	585	635	655	870	920	970	1060	1190	1280	1420	1670

Cold Weather (TX) Balloons

The TX Type balloon was first developed in 1988 and research continues in seeking a special latex compound w/other chemicals which permits balloons to reach the Tropopause where temperatures are lower than -75 degrees celcius and altitudes exceed 10 hPA.

Reference	KCI TX800	KCI TX1000	KCI TX1200	KCI TX2000	KCI TX3000
Color	uncolored/natural				
Average Weight (gr)	800	1000	1200	2000	3000
Neck Diameter (cm)	3	3	3	5	5
Neck Length (cm)	12	12	12	18	18
Flaccid Body Length more(cm)	184	206	226	289	357
Barely Inflated Diameter more(cm)	117	131	144	184	227
Payload (gr)	250	250	1050	1050	1050
Recommended Free Lift (gr)	970	1060	1190	1420	1670
Nozzle Lift (gr)	1220	1310	2240	2470	2720
Gross Lift (gr)	2020	2310	3440	4470	5720
Diameter at Release (cm)	150	157	179	195	212
Volume at Release (cu. m)	1.76	2.01	2.99	3.89	4 97
Rate of Ascent (m.min)	320	320	320	320	320
Diameter at Burst (cm)	738	88	910	1079	1331
Bursting Altitude (km)	33.6	35	34 2	35 8	38.3
Bursting Pressure (hPa)	6.9	5.6	6.3	5	3 5

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