

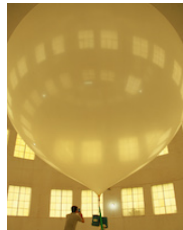
Ningbo Huanjie Electronics Co., Ltd
Meteorological Balloon Supplier from China

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About us

Incorporated in 2006, Ningbo Huanjie Electronics Co., Ltd (Meteosky Technologies Limited) is a leading and professional supplier in China of **meteorological balloon, weather balloon and sounding balloon**. We have exported our products to more than 40 countries, such as Russia, Kazakhstan, Lithuania, Ukraine, United Arab Emirates, Israel, Pakistan, India, Malaysia, South Korea, Italy, France, United States, Mexico, Colombia, Chile, South Africa, etc. We offer a full range of meteorological balloon from 10 gram to 8000 gram which are widely used in weather forecast, target track in air force, near space national defence scientific research, mitigation, typhoon and hurricane detection, etc.




3000g

With a professional technical service term, we offer superior quality meteorological balloon. Our main model 350 gram balloon can rise up to 28-29km, and the average burst altitude can be 26km (85000ft). Our NSL series balloon can rise up to more than 40km (130000ft) which is the highest altitude in the world.

At present, we have following superior performance meteorological balloons in the world market: 300g~800g (bursting altitude 22,000m~35,000m with effective rate more than 90%); 1600g and 2000g balloons (bursting altitude over 35,000m with effective rate more than 90%), 3000g/NSL-40 sounding balloon (bursting altitude over 40,000m with effective rate more than 90%)

Why choose us?

-  Full range of meteorological balloon from 10gram to 8000gram
-  Professional technical service and power R&D. 40km~50km bursting altitude
-  Excellent Pre and After Sales Service. Quick response to any correspondence.
-  Superior quality and good performance, especially for 350gram balloon

Customer's Affirmation

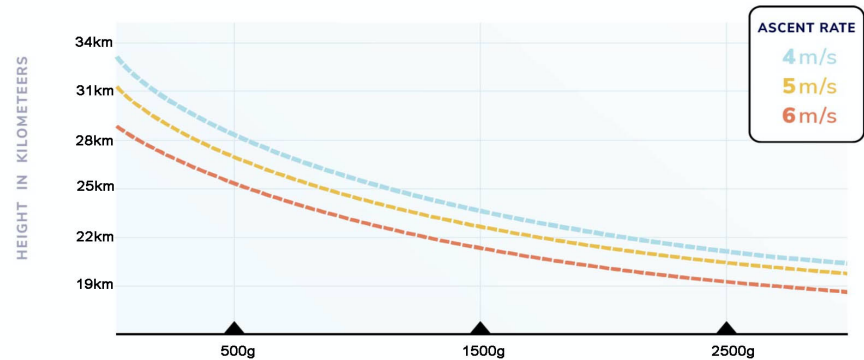
We cherish every opportunity to cooperate with our customers, we keep improving the quality and performance of our meteorological balloon, and take customer satisfaction as our first consideration. Every praise and affirmation from customers is the driving force for us to move forward... Attached is the graph illustrates bursting altitude of 350 gram weather balloon



Pilot balloon from 10g to 140g



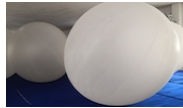
200g



What is a weather balloon?



500g



600g



750g



800g



1200g

Weather balloon is made of high quality natural rubber latex, which is strong and can be made with a thicker film for a given performance, and less affected by temperature.

Normal weather balloons are mainly used in meteorology, huge balloons are used in near space scientific research.

Polit balloons are used for visual measurement of upper wind. Ceiling balloons are used for the measurement of cloud-base height, these small balloons do not carry any load, they are almost invariably of the spherical extensible type and their chief requirement, apart from the ability to reach satisfactory heights, is that they should keep a good spherical shape while rising.

Balloons used for carrying radiosone are called radiosonde balloons, they can carry 200g to 1kg load up to heights as great as 35km at a rate of ascent.

Huge balloons such as our models NSL series can rise up to 40-50km near space, which are widely used for earth map measurement, near space scientific research and so on.

The production process of our balloon is made by dipping technology, and our moulded balloons are made with more uniform thickness, which is desirable for achieving high altitudes as the balloon expands, and the neck can be made in one piece with the body, which avoids the formation of a possible weak point, and the neck length of our balloons are from 5 to 10cm (ceiling and pilot balloon), from 8 to 16cm (sounding balloons), the neck diameter can be from 2.2 to 3 cm (ceiling and pilot balloon), from 3.0 to 8.0cm (sounding balloons)

Typical balloon performance

SIZE (g)	Weight (g)	Neck Length(cm)	Neck Dia(cm)	Body Length(cm)	Horizontal Dia(cm)	Bursting Dia (cm)	Inflation inspection Dia(cm)	Neck lift (g)	Free lift(g)	Total lift (g)	Average Bursting Alitue(m)	Color	Average rate of ascent(m/min)
10	10 ~ 14	5-7	2.2±0.3	14 ~ 19	9 ~ 12	> 60	≥33	300	50	310	8000	Red, Black Natural	100
30	30 ~ 40	7-9	2.8±0.3	31 ~ 39	20 ~ 25	> 100	≥64	390	140	420	11000	Red, Black Natural	200
50	50 ~ 60	7-9	2.9±0.3	45 ~ 55	29 ~ 35	> 120	≥90	400	150	450	13000	Red, Black Natural	200
100	100 ~ 118	8-10	3.0±0.3	75 ~ 85	48 ~ 54	> 180	≥122	410	160	510	16000	Red, Black Natural	200
200	200 ~ 230	10-12	3.5±0.3	90 ~ 104	57 ~ 66	> 300	≥165	1010	760	1210	19000	Red, Black Natural	≥340
300	300 ~ 330	10-12	4.3±0.3	135 ~ 160	77 ~ 89	> 380	≥260	1060	810	1360	22000	natural	≥340
350	350 ~ 390	12-14	4.4±0.3	140 ~ 170	89 ~ 108	> 410	≥280	1075	825	1375	26000	natural	≥340
400	400 ~ 440	12-14	4.5±0.3	145 ~ 175	92 ~ 111	> 450	≥300	1125	875	1425	26500	natural	≥340
500	500 ~ 550	12-14	5.1±0.3	170 ~ 190	108 ~ 121	> 500	≥380	1155	905	1655	27000	natural	≥340
600	600 ~ 645	12-14	5.4±0.3	190 ~ 220	121 ~ 140	650 ~ 750	≥400	1370	1120	1970	28000	natural	≥340
750	750 ~ 800	12-15	5.4±0.3	215 ~ 254	137 ~ 162	> 650	≥450	1470	1220	2220	29000	natural	≥340
800	800 ~ 850	12-15	5.7±0.3	210 ~ 240	140 ~ 162	> 680	≥470	1470	1220	2270	30000	natural	≥340
1000	1000 ~ 1100	12-15	5.9±0.3	215 ~ 245	153 ~ 172	800 ~ 900	≥500	1560	1310	2560	32000	natural	≥340
1200	1200 ~ 1350	14-16	6±0.3	279 ~ 300	172 ~ 191	> 850	≥550	2490	2240	3690	33000	natural	≥340
1600	1600 ~ 1750	14-16	7.8±0.4	298 ~ 330	190 ~ 210	> 1050	≥600	2650	2400	4250	36000	natural	≥340
2000	2000 ~ 2200	14-16	7.9±0.4	306 ~ 345	195 ~ 220	> 1100	≥600	2750	2500	4750	38000	natural	≥340
3000	3000~3200	14-16	8±0.4	430~490	274 ~ 312	> 1300	≥600	2850	2600	5850	40000	natural	≥340

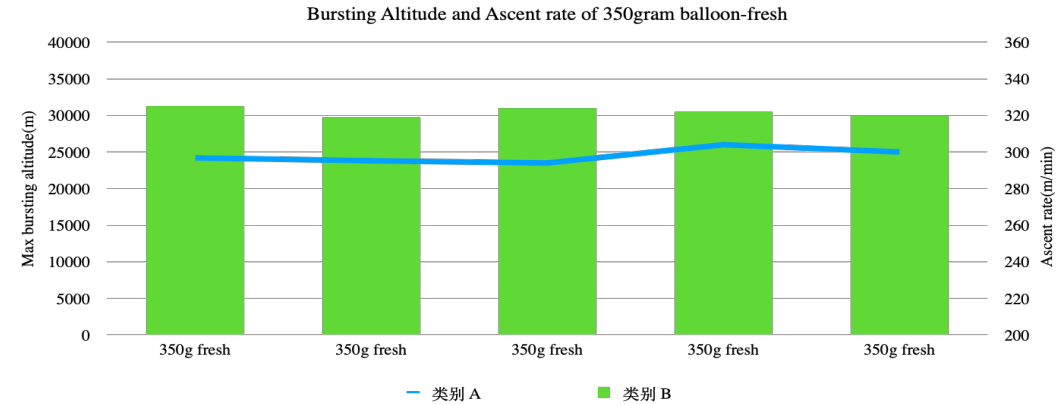
Perfect performance of 350gram meteorological balloon

Our 350gram meteorological balloon is widely used throughout the world with BEST performance. In most countries and regions, such as Africa, Centra and South America, the Middle East, West Asia, the average bursting altitude can approach about 29~30km (payload:250g, free lift:within 900g). In some countries, they are even considering using our 350gram balloon instead of 400gram balloon. With stable perfect performance of our 350gram balloon, high productive capacity (75000pcs monthly), prompt after-sales service, we have won many tenders step by step from national Meteorological department and air force in the world.

Here attached is the release data feedback from our clients.



350g



350G METEOROLOGICAL BALLOON SPECIFICATIONS

Weight: 350+35g
Color: natural
Material: Natural latex

Neck Diameter: 4.1~4.7cm
Neck Length: 10~14cm
Flaccid Body Length: ≥140cm

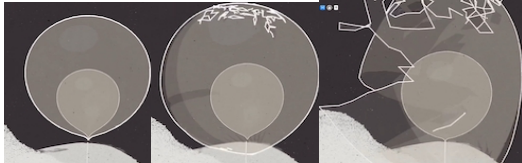
Average Bursting Altitude: 26km
Barely Inflated Diameter: ≥89cm
Average Bursting Altitude: **26km**

Diameter at burst: ≥480cm
Climbing speed: 5m/s~7m/s
Body Length Tolerance Of The Same Lot: ≤18cm

Volume at burst: ≥58m³
Payload: min 250g

What is NSL meteorological balloon?

Rough climatic elements, such as rain, snow, freezing, strong wind, high humidity layer (3000-10000m) all affect the rising of a weather balloon. Through a special formula, our NSL balloon series are designed to assure it can even rise up to 40km~50km (near space) altitude, the balloon is made up of double-layer structure in one neck, the master balloon(inner balloon) is covered by an auxiliary one(outer balloon), when rising, the auxiliary balloon can protect the master one from these extreme rough weather elements so that the master balloon can rise up to a desired high altitude and the effective rate of bursting altitude can be more than 90%



SIZE (g)	Weight (g)	Neck Length(cm)	Neck Dia(cm)	Body Length(m)	Horizontal Dia(cm)	Bursting Dia (cm)	Free lift(g)	Average Bursting Alititue(m)	Color	Average rate of ascent(m/min)
NSL-40	3000-4000	≥15	≤12	4.20~5.50	268 ~ 350	> 1300	1800-2500	40000	natural	≥330
NSL-45	6000 ~ 8000	≥15	≤13	5.80~7.50	369 ~ 470	> 1500	1800 ~ 2800	> 45000	natural	≥330

How to handle the balloon?

Storage:

Balloons should be stored away from direct sunlight and any source of heat and ozone and kept in their original packing until required for preflight preparations. Don't contact oil or any other substance that may penetrate the carton and damage the balloons. It is suggested to store the balloon in a room at temperature of 15-25 °C. It is preferable for balloons that have been stored for a long period at temperatures below 10 °C to be brought to room temperature for some weeks before use.

Inflation If a balloon launcher is not used, a special and well ventilated room, preferably isolated. If hydrogen gas is to be used, special safety precautions are essential. The building should be free from any source of sparks, and all electric switches and fittings should be spark-proof. If helium gas is to be used, provision may be made for heating the building during cold weather. The walls, doors and floor should have a smooth finish and should be kept free from dust and grit. Heating hydrogen-inflation areas can be accomplished by steam, hot water or any other indirect means; however, electric heating. Protective clothing should be worn during inflation. The operator should not stay in a closed room with a balloon containing hydrogen. The hydrogen supply should be controlled and the filling operation observed, from outside the filling room if the doors are shut, and the doors should be open when the operator is in the room with the balloon. Meteorological Balloons should be inflated slowly because sudden expansion may cause weak spots in the balloon film. It is desirable to provide a fine adjustment valve for regulating the gas flow. The desired amount of inflation (free lift) can be determined by using either a filling nozzle of the required weight or one which forms one arm of a balance on which the balloon lift can be weighed. The latter is less convenient, unless it is desirable to allow for variations in the weights of balloons, which is hardly necessary for routine work. It is useful to have a valve fitted to the weight type of the filler, and a further refinement, used in some services, is to have a valve that can be adjusted to close automatically at the required lift.

Launching The balloon should be kept under a shelter until everything is ready for its launch. Prolonged exposure to bright sunshine should be avoided as this may cause a rapid deterioration of the balloon fabric and may even result in its bursting before leaving the ground. Protective clothing should be worn during manual launches. No special difficulties arise when launching radiosonde balloons in light winds. Care should always be taken to see that there is no risk of the balloon and instruments striking obstructions before they rise clear of trees and buildings in the vicinity of the station. Release problems can be avoided to a large extent by carefully planning the release area. It should be selected to have a minimum of obstructions that may interfere with launching; the station buildings should be designed and sited considering the prevailing wind, likely gust effects on the release area and, in cold climates, drifting snow. It is also advisable in high winds to keep the suspension of the instrument below the balloon as short as possible during launching, by using some form of suspension release or unwinder. A convenient device consists of a reel on which the suspension cord is wound and a spindle to which is attached an air brake or escapement mechanism that allows the suspension cord to unwind slowly after the balloon is released. Mechanical balloon launchers have the great advantage that they can be designed to offer almost fool-proof safety, by separating the operator from the balloon during filling and launching. They can be automated to various degrees, even to the point where the whole radiosonde operation requires no operator to be present. They might not be effective at wind speeds above 20 m s⁻¹. Provision should be made for adequate ventilation of the radiosonde sensors before release, and the construction should desirably be such that the structure will not be damaged by fire or explosion.