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BBE® Y-Series Technical Datasheet

Description

The protective respirators of the BBE® Y-Series meet the requirements of European Standard EN149:2001 + A1:2009 (filtering facepiece respirators for use against particles) according to PPE directive (EU) 2016/425. They provide effective respiratory protection against micro-biological agents (viruses and bacteria) that may be present in the air. Designed for highest protection, the mask is suited for use in industries where workers will be exposed to solid (dust) particles and/or non-volatile liquid particles.

Applications

These respirators are suitable for use in concentrations of solid (dust) particles and/or non-volatile liquid particles up to the following limits:

Product	EN 149:2001+A1:2009 Classification	Maximum Workplace Exposure Limit (WEL)*
Y20N	FFP2 NR	12
Y31V (YXP311)	FFP3 NR	50

*Many countries apply Assigned Protection Factors (APFs) which reduce the maximum concentrations of particles in which these products can be used. See national regulations and EN 529:2005.

Respiratory protection is only effective if it is correctly selected, fitted and worn throughout the time when the wearer is exposed to hazards.



Standards

Products are classified by filtering efficiency and maximum total inward leakage performance (FFP1, FFP2 and FFP3), also by usability and clogging resistance.

Performance tests in this standard include filter penetration; extended exposure (loading) test; flammability; breathing resistance and total inward leakage. Reusable products are also subjected to cleaning, storage and mandatory clogging resistance tests (clogging is optional for non-reusable products). A full copy of EN 149:2001+A1:2009 can be purchased from your national standards body.

Filter penetration

The filter penetration, initial and after 120mg of loading with both 120mg of NaCl* and Paraffin Oil, shall not exceed the following limits:

EN 149:2001+A1:2009 Classification	Maximum Filter Penetration
FFP1	20%
FFP2	6%
FFP3	1%

*Loading of NaCl may be stopped if filter penetration during loading is observed to decrease.

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Total inward leakage

Ten subjects perform five test exercises whilst wearing the respirator. The total inward leakage inside of the respirator due to face seal leakage, filter penetration and valve leakage is measured for each subject exercise. The subject mean total inward leakage for 8 out of 10 subjects shall not exceed the following limits:

EN 149:2001+A1:2009 Classification	Maximum Total Inward Leakage
FFP1	22%
FFP2	8%
FFP3	2%

Breathing resistance

The breathing resistance of the respirator is tested during inhalation (continuous flow) and exhalation (cyclical flow). The breathing resistance of the respirators shall not exceed the following limits:

EN 149:2001+A1:2009 Classification	Maximum Breathing Resistance		
	Inhalation at 30l/min	Inhalation at 95l/min	Exhalation at 160l/min
FFP1	0.6 mbar	2.1 mbar	3.0 mbar
FFP2	0.7 mbar	2.4 mbar	3.0 mbar
FFP3	1.0 mbar	3.0 mbar	3.0 mbar

Clogging

For single shift use respirators (NR), the clogging test is optional. For re-usable respirators (R) this test is mandatory. The respirators are loaded with very high amount of Dolomite dust which will tend to clog the filter. After loading with the required amount of dust, the breathing resistance of the respirators shall not exceed the following limits:

EN 149:2001+A1:2009 Classification	Maximum Breathing Resistance	
	Inhalation at 95l/min	Exhalation at 160l/min (continuous flow)
FFP1	4.0 mbar (valved respirator) 3.0 mbar (unvalved respirator)	3.0 mbar (valved respirator)
FFP2	5.0 mbar (valved respirator) 4.0 mbar (unvalved respirator)	3.0 mbar (valved respirator)
FFP3	7.0 mbar (valved respirator) 5.0 mbar (unvalved respirator)	3.0 mbar (valved respirator)

Flammability

Tested respirators are mounted on a metallic head which rotates with a linear speed of 60mm/s. The respirators are passed within 20mm of the tip of an 800°C (±50°C) propane burner flame. The respirator shall not burn or continue to burn within 5 seconds of removal from the flame.

Components and materials

The following materials are used in the production of the BBE® Y-Series:

Component	Material
Straps	Polyisoprene
Nose foam	Latex
Nose clip	Polypropylene
Filter	Polypropylene
Valve	Polypropylene / Polyisoprene
Individual wrapper	Polypropylene

These products do not contain components made from natural rubber latex.

Product	Typical weight
 BBE® Y-Series Y20N Protective respirator	6g
 BBE® Y-Series Y31N/YXP311 Protective respirator	11g

Storage and Transportation

BBE® Y-Series respirators have a shelf life of 2 years from date of manufacture. End of shelf life is marked on the product packaging. Before initial use, always check that the product is within the stated shelf life (use by date). Product should be stored in clean, dry conditions within the temperature range: – 20°C to + 35°C with a maximum relative humidity of <80%. When storing or transporting this product use original packaging provided.

Warnings and Use Limitations

Application: Protects against solid and liquid aerosols according to EN 149:2001 +A1 :2009. NR: for single use, replace per shift. FFP2: max. 10 x OEL, in addition against group 2 biological agents. (OEL = occupational exposure limit)

If you have questions, contact your safety officer or BBE Solutions. To select the right respirator and protection level observe national regulations. Check before use/fitting. Use mask only if not damaged.

Perform a fit check: Cover the mask with both hands and exhale sharply. If leakage is detected, check position of mask- if necessary shorten strap. Only enter workplace when proper fit is achieved.

Note: Facial hair can prevent adequate fit. Please ensure mask is in place during use.

When transporting this product use original packaging provided.

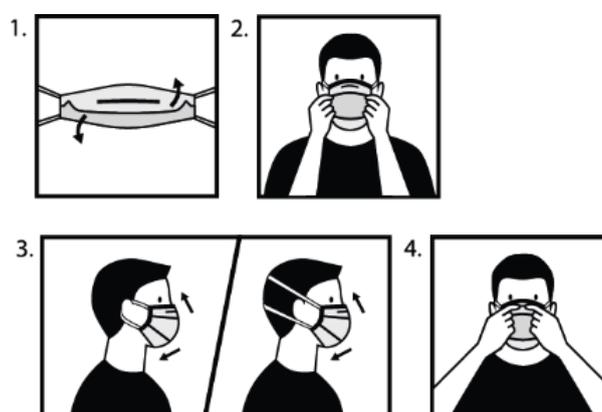
The wearer must be instructed in the proper use of the mask. Does not protect the wearer against vapors/gases, or atmospheres with an oxygen level lower than 19.5%. Never enter unventilated narrow rooms and shafts with filtering respirator. Do not use against contaminants / concentrations unknown or immediately dangerous to health. Leave area immediately when breathing becomes difficult or other distress occurs. Dispose respirator when damaged or breathing resistance increases strongly. Do not modify or tamper with mask. Incorrect use or not following the user instruction can reduce the protection level and lead to damage to health.

Fitting Instructions

Before fitting device, ensure hands are clean.

All respirator components should be inspected for damage prior to each use.

1. Stretch the mask and fold the top and pull outwards. Before putting on the mask, bend the nose clip of the mask.
2. Place one ear loop around each ear.
3. Ensure that the two loops / straps are properly secured behind the respective ear and that the mask is firmly seated on your face. You may use the clip to adjust the length of the ear strap behind your head.
4. Place the fingertips from both hands at the top of the nose by pushing inwards while moving your fingertips down both sides of the nose-clip.



Fit Check

1. Cover the front of the respirator with both hands being careful not to disturb the fit of the respirator.
2. (a) UNVALVED respirator - EXHALE sharply; (b) VALVED respirator - INHALE sharply;
3. If air leaks around the nose, re-adjust the noseclip to eliminate leakage. Repeat the above fit check.
4. If air leaks at the respirator edges, work the straps back along the sides of the head to eliminate leakage. Repeat the above fit check.

If you CANNOT achieve a proper fit DO NOT enter the hazardous area. See your supervisor.

Users should be fit tested in accordance with national requirements.

For information regarding fit testing procedures, please contact BBE Solutions.

Disposal

Contaminated products should be disposed as hazardous waste in accordance with national regulations.

Marking



Do not reuse



Attention, see instructions for use



Don't use when packaging damaged



See information supplied by the manufacturer



Temperature range of storage conditions



Maximum relative humidity of storage conditions

Approvals

These products meet the requirements of the European Directive (EU) 2016/425 (Personal Protective Equipment Directive) and are thus CE marked. Certification for EU Type-Examination and EU quality control, has been issued for these products by LGAI TECHNO-LOGICAL CENTER (APPLUS) Notified Body 0370, Campus UAB, Ronda de la Font del Carme s/n, E-08193 Bellaterra (Barcelona), Spain

Important Notice

The use of the BBE Solutions products described within this document assumes that the user has previous experience of this type of product and that it will be used by a competent professional. Before any use of this product it is recommended to complete some trials to validate the performance of the product within its expected application.

All information and specification details contained within this document are inherent to this specific BBE Solutions product and would not be applied to other products or environment. Any action or usage of this product made in violation of this document is at the risk of the user.

Compliance to the information and specification relative to the BBE Solutions product contained within this document does not exempt the user from compliance with additional guidelines (safety rules, procedures). Compliance to operational requirements especially in respect to the environment and usage of tools with this product must be observed. The BBE Solutions GmbH (which cannot verify or control those elements) would not be held responsible for the consequences of any violation of these rules which remain external to its decision and control.

Warranty conditions for BBE Solutions products are determined with the sales contract documents and with the mandatory and applicable clause, excluding any other warranty or compensation.

Version: 1

This version is the sole document applicable to the product(s) since its date of publication

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