

Email Mark 2 & Mark 2 HC

Air Purification Spheres

Air Purification Spheres

- Perfect for small, medium and large air purification systems.
- Precision engineered to exacting specifications.
- Provides all the benefits you'd expect.
- A must for high-performance reliability and protection.
- Safe, easy to use so it cuts energy costs.
- Controls corrosion- reacts to destroy gases and vapours.
- Certified UL Class 1.

The major advantages of Mark 2 over other media types

High-performance Mark-2 media contains activated alumina that is entirely impregnated with precise blends of dynamic-oxidant chemicals before being formed into uniformly sized heavy duty spheres.

Principle of Operation

Intricate channels of Mark-2 air purification spheres extensively increases the chemical surface areas for the destruction of corrosives and contaminants.

Mark-2 HC media is the higher capacity variant of the two media types, offering double the Permanganate % by weight compared with standard-capacity Mark-2 media. The HCs' performance is approximately 40% better than the standard Mark-2 spheres.

Mark 2 & Mark 2 HC react to destroy these gases and vapours:

Highly reactive: H₂S, SO₂, Ethylene (Olefins), Formaldehyde, Methyl & Ethyl Mercaptans.

Reactive: Chlorine, HCL, Shortchained Alcohols, Aldehydes, Light Organic Vapours, Organic Acids, Inorganic Acids.

Less Active: Aromatics, Long-chained Alcohols, Ketones, Chlorinated Hydrocarbons, Paraffins, Heavy Organic Vapours, Heavy Mercaptans.

Note: AES Environmental provides other media for specific applications, including special blends for individual requirements.

BUILT-IN COLOUR INDICATOR

Purple Surface

Fresh, unexposed Spheres



Dark Grey Surface

With purple interior. Oxidation of H₂S is taking place. Less active chemistry still available.



Light Grey Surface

With purple interior. Prolonged oxidation taking place. Less active chemistry still available.



Light Grey Throughout

Active chemistry has been totally consumed.



Email Mark 2 media performance tests

Independent laboratories have conducted performance tests. The tests were performed under conditions that realistically reflected actual field environment and optimum design criteria.

ASTM approved analytical equipment and testing procedures were utilised to assure unbiased objective results.

In both tests, Email Mark-2 & Mark-2 HC clearly demonstrated state of the art performance characteristics for superior efficiency in removing corrosive contaminants and odours.

Operational Efficiency

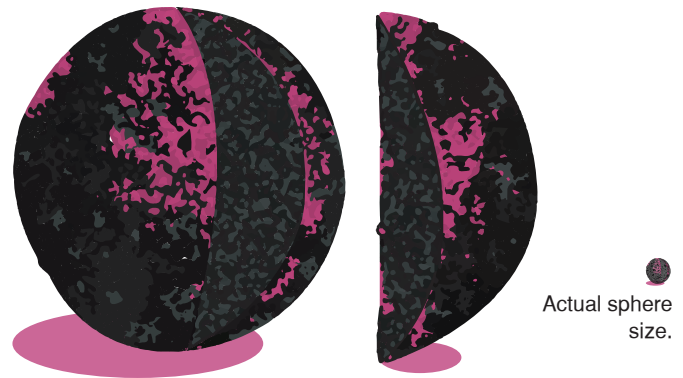
Email Mark-2s' chemical formulations and production procedures empower it to operate at absolute efficiency levels, depending on the design criteria and characteristics of the User's air purification system.

Rigorous usage by industries and testings by laboratories have demonstrated and authenticated the superb performance of Mark-2 & Mark-2 HC.

Typical Specifications

	Mark-2	Mark-2 HC
Shape	Spherical	
Size	>5.69 - 2.36mm 85% <2.36mm <5%	
Colour	Purple	
Bulk Density	800kgs/m3 at 15% moisture	
Permanganate	4% by weight (dry)	8% by weight (dry)
Moisture Content	20% Maximum	

Cut away shows structural porosity and channeling of a typical Mark 2 Air Purification Sphere.



Comparisons of available media

	Email Mark-2 Spheres	Surface Coated Spheres	Chemical Impreg. Carbon
Carries a UL CLASS-1 Rating	YES	Yes	No
Built in colour indicator to determine available chemistry content throughout	YES	Yes	No
Non-combustable	YES	Yes	No
Active chemistry per unit weight	VERY HIGH	Very low	High
Uniformity of flow-path through packed bed	VERY UNIFORM	Uniform	Uniform
Extends useful life of media bed	YES	No	Yes
Absorbed/Adsorbed Pollutants will NOT outgas	WILL NOT UNIFORM	Can	Will
Shape of individual unit		Uniform	Irregular
Relative humidity recommended useable above 90° ambient	YES	Yes	No
Easy disposal of spent media	YES	Yes	No

After an extended period of usage in an air purification system, there are several ways to determine the active chemicals still available in the Mark-2 media.

- Conduct a standard laboratory titration test for the active chemical percent, by weight. A typical field-test kit is ideal for fast and easy on-site testing that is positive for determining the used media quality and active chemical content.
- By comparison. Pull sphere samples from several areas in the bed or cells and cut them in half. Compare them to the colour indicator chart shown on page 1 to determine the approximate activity taking place.

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In keeping with our policy of continuing product improvement, we reserve the right to alter specifications without notice.

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