Technical Data Sheet
480 Series Respiratory Filter
481, 482 Gas Filters / 483 Combined Filter

1.0	**General Data**	
1.1	Manufacturer	IRONA INDUSTRIES, SLU ERMITA. 14 St, IVARS D´URGELL 25260, LLEIDA, SPAIN
1.2	Designation	480 Series of Gas Filter Double filters
1.3	Intended use	Respiratory protection against gases and vapours in conjunction with a specified face piece. Scope of protection as indicated by product documentation, technical standards and installed application rules.
1.4	Relevant	
1.5	standards	EN 14387:2004+A1:2008
1.6	Certification	EU type approval test certificate, granted by accredited and notified test by NB 2834 appointed ilac-MRA lab

2.0	**Design & Construction**		
2.1	Connection to facepiece	Standard double filter bayonet connection by EN 14387	
2.2	Materials	Filter housing: Sorbents: : Label and seals:	ABS, coated inside activated carbon + Glass Fiber Filtration P3 Class Paper
2.3	Design	The filter housing has a oval shape and consists of the filter pot and the filter cover. Filter pot includes the bayonet connection, filter cover has an netty opening to the inhalation side. There is one filter bed consisting of carbon. It is fixed by the housing and internal sieves. with extra particle filter casing to create combined filter or using adapter to be flexibly create combined filters	
2.4	Working principle	Gases and vapours are removed from the ambient air by adsorption onto the sorbent (activated carbon). Glass Fiber can filter out oil or aerosol based particles	
2.5	Shelf life	5 years	
2.6	Dimensions	Outer: Height (incl. thread and plugs): Volume activated carbon:	106x86 mm 21 mm 50±5 gm
2.7	Weight	Incl. cap, excl. package:	approx. 165±10g

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3.0	**Performance Data**	(minimum data in accordance with standard)	
3.1	Particle filtration efficiency	>=99.95% when combined filter with P3 applied	
3.2	Gas filtration capacity	Test conditions:	30 L/min flow rate, 70% rel. humidity

Type	Test gas	Class	Concentration	Breakthrough	Min.duration
A	Cyclohexane (C_6H_{12})	1	1,000 ppm	10 ppm	70 min
B	Chlorine (Cl_2)	1	1,000 ppm	0.5 ppm	20 min
	Hydrogen Sulphide (H_2S)	1	1,000 ppm	10 ppm	40 min
	Hydrogen Cyanide (HCN)	1	1,000 ppm	10 ppm	25 min
E	Sulphur Dioxide (SO_2)	1	1,000 ppm	5 ppm	20 min
K	Ammonia (NH_3)	1	1,000 ppm	25 ppm	50 min

3.3	Breathing resistance	at 30 liters/min, constant flow	max. 1.0 mbar
		at 95 liters/min, constant flow	max. 4.0 mbar
3.4	Mechanical resistance	Resistent to shock and vibration as required by EN 14387	
3.5	Chemical resistance	For normal use conditions the filter is resistant against temperature, humidity and corrosives. The filter is internally resistant against the filtering agents (sorbents). Ingress of water or other liquids must be avoided.	

4.0	**Documentation**	
4.1	Markings	Label: marking includes colour coding in accordance with EN 14387, approval number and indication on the instruction for use (by NB 2834 symbol). Approval marking: **CE 2834** Standard IFU with main languages: English
4.2	Instructions for use	

5.0	**Packing & Packaging**	
5.1	Package	Carton, robust for normal transportation and storage, closed with factory label, indicating designation, type of filter, expiry date
5.2	Packaged units	2 filter per bag, 50bags per carton-gas filter / 25bags per carton-combined filter, UI Printed on packaging

6.0	**User Notes**	
6.1	System usability	Suitable for all half or full face mask with standard bayonet double filtering connector specified by the manufacturer
6.2	Limitations	The filter conforms to the minimum requirements of the standard indicated by the class and type of the filter it is marked with. It must be noted that laboratory values can differ from those measured in practice. This may result in longer or shorter break through times. The user must read and understand the instructions for use. Additionally the knowledge of all relevant application rules is mandatory (see in particular the limitations in use). Further information on request.

IRONA INDUSTRIES, SLU