Technical Data Sheet

Dräger PARAT 5550 Fire Escape Hood in flame-retardant Holster

1.0	**General Data**	
1.1	Manufacturer	Dräger Safety AG & Co. KGaA, Revalstraße 1, D – 23560 Lübeck, Germany
1.2	Designation & Dräger part no.	PARAT 5550 Fire Escape Hood with Holster R 59 445 (EAN/GTIN: 4026056015504)
1.3	Intended use	Fire escape / respiratory protection (incl. eye protection) against carbon monoxide, fire related gases, toxic particles and smoke. For single use.
1.4	Useage Duration	At least 15 minutes in order for the user to escape to a safe area.
1.5	Certification	**EN 403:2004(M)** EC type test certificate, granted by accredited and notified Certification Body DEKRA EXAM GmbH, Dinnendahlstraße 9, 44809, Bochum, Germany **EN 137:2006, Type 2** EC type test certificate, granted by accredited and notified Certification Body DEKRA EXAM GmbH, Dinnendahlstraße 9, 44809, Bochum, Germany System approved according to EN137:2006, Type two together with Dräger breathing apparatuses. Attachment and carrying options are listed in the separate assembly instruction sheet (PN 9031288)
1.6	Further relevant standards	Filter additionally tested against 2.500ppm H_2S according to DIN 58647-7:1997
1.7	Export approval	No classification → no sales restrictions

2.0	**Design & Construction (complete device)**	
2.1	Design & material	The PARAT 5550 consists of: 1. hood with large visor 2. inner half-mask (integrated in hood) with filter assembly 3. fire escape filter CO-P2 4. Welded, transparent foil bag with pressure equalization valve 5. Flame retardant aramid Holster
2.1.1	Hood	The hood fits different sizes. The at one-side PU coated material has got the signal-colour neon yellow. The neck collar, made of polyester and elastane, seals at the neck. The large visor enables a wide field of view. Hood material: polyamide 6.6 with polyurethane coating Visor: cellulose propionate Neck collar: polyester and elastane Straps: polyamide 6.6 and elastane Exhalation valve: silicone (age-resistant)
2.1.2	Inner half mask	The telescope-mechanism of the inner-half mask allows the hood to be packaged in a space-saving manner. It is very comfortable to wear and ensures a good fit for different head sizes and shapes. Half-mask: ethylene propylene diene M-class rubber

Technical Data Sheet

Dräger PARAT 5550 Fire Escape Hood in flame-retardant Holster

2.1.3 Filter	The filter housing has a round shape and consists of the filter pot and the filter cover. The filter cover has a round inlet opening, the filter pot has a round outlet opening. The filter bed consists of hopcalite. It is fixed by the housing and internal sieves. The particle filter with ring fold geometry is positioned in front of the gas filtration part and is made of one part. A tight connection between the particle filter and the housing is performed by butyl glue. Both openings are closed by plugs. The plugs are connected to pull strings, which are fixed in the foil pouch. Upon opening the foil pouch and removing the hood while at the same time holding onto the pull strings the filter plugs will be removed. Pull string cotton/ polyurethane

2.1.4 Foil pouch	PA / PE composite sheet with marked opening and perforated opening area. Donning pictogramms are printed from the inside of the pouch. Pressure equalization valve constructed from PE / PET composite material allows for air to be released.

2.1.5 Holster	Holster constructed from flame-retardant Aramid material with reflective stripes. Velcro closure. Integrated belt loop with emergency release according to DIN 14922. Optional accessory pockets (small and large) can be attached

2.2 Working principle	Fire-related gases and vapours, especially carbon monoxide (CO) are converted from the ambient air by the carbon catalyser (hopcalite) into CO_2 and heat. Particles are filtered by the glass fibre filter. The hood protects the entire head, including the eyes up to a certain extent from dust, gases, vapours, and splashes of liquid chemicals as well as heat, sparks and flames. It enables a clear view through the large visor.
2.3 Service life	The Dräger PARAT 5550 has a life time of 8 years. Thereafter it is possible to have the filter exchanged by Dräger Service and extend the total lifetime to 16 years.

3.0 Performance Data

(minimum data in accordance with EN 403:2004 / DIN 58647-7:1997)

Technical Data Sheet

Dräger PARAT 5550 Fire Escape Hood in flame-retardant Holster

3.1 Mechanical resistance

Shock proofed
10,000 impacts for entire device

Drop test
6 x 1.5m on smooth concrete surface (from different starting positions)

Packaging Stability
Firing pin test acc. to EN 403:2004

Flame resistance
The unit does not contain easily flammable parts. At 800 ± 50°C the device is pulled through an open flame at 6 ± 0.5 cm/sec. – when removed from the flame, the device stops burning (self-extinguishing).

Temperature changing resistance
Performing in the listed order:
(70 ± 3) °C, rel. humidity < 20 %, (72 ± 3) h
(70 ± 3) °C, rel. humidity ≥ 95 %, (72 ± 3) h
(-30 ± 3) °C, (24 ± 1) h

Pressure changing
2 compressed air cycles between 0 and -400 mbar differential pressure for 60 seconds
pressure compensation after < 20 seconds
3,000 compressed air cycles between 0 and -300 mbar differential pressure for 60 seconds
pressure compensation after < 10 seconds

3.2 Particle filtration efficiency (according to EN 143:2007 (P2))

Test Aerosols:	sodium chloride, paraffin oil
minimum efficiency at a flow of 95 L/min	94 % NaCl, 94 % paraffin oil

3.3 Gas filtration capacity

Test conditions (EN 403:2004):
20x1,5 L sinus, 90 % rel. humidity, 25°C (CO)
30 L/min, 70 % rel. humidity, 20°C (Acrolein,HCl, HCN)

Test Gas	**Concentration** / ppm	**Breakthrough** / ppm	**Minimum breakthrough time** / min
CO	2,500 [1)]	200 [2)]	15
Acrolein	100	0.5	15
HCl	1,000	5	15
HCN	400	10	15

[1)] Additional tests with 5,000, 7,500 and 10,000 ppm
[2)] temporal weighted arithmetic mean during every 5 minutes

Test conditions (according to DIN 58647-7:1997):
30 L/min, 70% rel. humidity, 20°C

Test Gas	**Concentration** / ppm	**Breakthrough** / ppm	**Minimum breakthrough time** / min
H_2S	2,500	10	15

Technical Data Sheet
Dräger PARAT 5550 Fire Escape Hood in flame-retardant Holster

3.4	Breathing resistance (in acc. with EN 403:2004)	inhalation resistance: < 8 mbar	exhalation resistance: < 3 mbar
3.5	Inside directed leakage without filter outlet (dead space volume of the hood)	< 2 %	

4.0	**Documentation**	
4.1	Markings	Package: date of manufacture, expire date, batch number, classification, storage condition, marking, standard number, QR code, notified body number, and indication on the instruction for use. Notified Body number: CE 0158
4.2	Instructions for use	Standard Languages: English, French, German, Italian, Dutch, Norwegian, Russian, Arabic Country specific Languages: Brazilian Portuguese, Chinese, Danish, Finnish, Polish, Romanian, Swedish, Spanish, Czech, Turkish Print on Demand Languages: Bulgarian, Estonian, Greek, Croatian, Lettish, Lithuanian, Slovak, Slovenian, Hungarian, Japanese

Technical Data Sheet
Dräger PARAT 5550 Fire Escape Hood in flame-retardant Holster

5.0 Packing & Packaging

5.1 Package:

dimension (HxLxW) / mm	weight (approx.) / g	part name	material (main components)
210x160x130	706	PARAT 5550 Fire Escape Hood with Holster	Flame-retardant Aramid-webbing

5.2 Packaged units: One hood each

6.0 Accessories and Training

For carrying and attachment of the PARAT 5550 different accessories are available.

Accessory Pockets (large and small), for carrying additional equipment

Shoulder Strap, Carabiner Hook

Attachment and wearing options with Dräger breathing apparatuses:

1.) Attachment on the waist belt (left or right side)

2.) Wearing with the shoulder strap

3.) Attachment to the backplate (left or right side), using a carabiner hook

4.) Attachment on the cylinder strap

Donning Posters:

To enable a quick overview about use and donning during third party and self-rescue with the PARAT 5550 hoods, a poster is available. This can be found in the product page of the D-World (Number: 90 72 696)

Donning Video:

For a more detailed overview about use and donning during third party rescue with PARAT 5550 a training video showing the donning procedure during third party rescue is available. This is on the Dräger YouTube channel, the respective link can be found on the product page in the D-World.

Technical Data Sheet

Dräger PARAT 5550 Fire Escape Hood in flame-retardant Holster

7.0	**User notes and limitations**	The performance of the filter is according to EN 403. The oxygen content of the ambient air must be at least 17 Vol.- % to 19.5 Vol.- %. Observe the respective national regulations. The storage temperature must be between -20°C and +55°C. The devices conform 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.

Dräger Safety AG & Co. KGaA