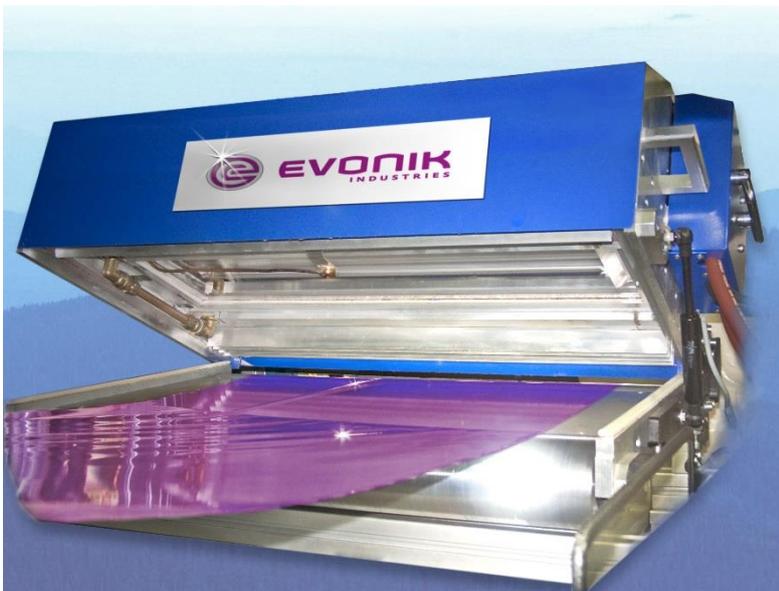


## Mobile UV unit (narrow web) for the curing of TEGO® RC products Test Facility

The small mobile UV station will serve as a demonstration unit for all interested customers in Europe to practically prove the advantages of Goldschmidt's catalyst-free and "cold-curing" TEGO® RC Silicones on almost all paper and film substrates. It has the right size to be installed on printing presses and narrow web coaters.

The mobile UV station, designed and built by Messrs. Eltosch/Hamburg in co-operation with Goldschmidt, has one UV arc lamp of 240 watts/cm, and an inerted base plate. The UV power allows line speeds up to 300 m/min. depending on the RC Silicone acrylate blend used. The maximum working width is 52 cm for paper or filmic liner substrates.



The complete demonstration unit includes a nitrogen distributor and residual oxygen analyser. We have intentionally excluded complicated automatic control systems to guarantee flexible operation under every possible working condition.

The inerted UV unit was designed for ease of installation into existing coating equipment. The equipment is mounted on the customer's coating line and connected to the existing supply systems. A contractual arrangement concerning the use of the UV equipment will be signed between Evonik Goldschmidt GmbH and the customer.

### Technical Specifications

Working width (web width)	max.	520 mm	(20,5 inch)
Length (in direction of web travel)		475 mm	(19 inch)
Overall height (closed)	approx.	359 mm	(14 inch)
Overall height (open)	approx.	~ 480 mm	(19 inch)
Overall width (incl. profile frame)	approx.	985 mm	(39 inch)

### Electrical Supply

Line voltage:	3 x 400 V, 50/60 Hz
Connection:	CEE-plug 32 A
Mains fuse (customer side):	25 A

**Important note:** The mains fuse refers to the maximum UV output of 240 W/cm; lower fuses are possible if the UV output is reduced accordingly. Different line voltages are possible also, details will be checked for the individual case.

### Water Supply

A separate water supply is not necessary. The unit has its own water circulation with an air cooled heat exchanger.

### Exhaust Air

Altogether the UV lamps require approx. 500 m<sup>3</sup>/h (17650 ft<sup>3</sup>/h) cooling air. An integrated fan will convey the air out of the UV unit. The customer needs to take care for the further guidance of exhaust air. The extracted air contains a minute quantity of ozone.

### Nitrogen Supply

The chemical reaction during the curing process requires the absence of oxygen in the curing chamber. The oxygen content shall not exceed 50 ppm. The UV unit is equipped with an oxygen analyser for the monitoring of the oxygen concentration.

Nitrogen consumption (depending on trial conditions):	50 m <sup>3</sup> /h	1 765 ft <sup>3</sup> /h
Nitrogen quality:	4.6	< 5ppm oxygen

A higher oxygen content in the nitrogen used would lead to an increased inert gas consumption. The supplier of the nitrogen has to be made aware of these conditions.

### The complete UV system consists of

1 mobile inerted UV unit	1 air cooled heat exchanger (800x700x800 mm)
1 nitrogen distribution (included in the electrical cabinet)	1 cooling fan RD4 (445x507x300mm) with ozone filter for lamp and quartz glass cooling
1 electrical cabinet (810x2100x800 mm)	2 water hoses of 10 m each for shutter and cooling plate
4 electrical cables 10m each	

Please contact Goldschmidt for further discussions and trials.

Essen, February 2011

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