

**What Does It Measure?**

The Visiopor® PP 34N camera uses a specific **UV-light** to visualize the **fluorescing acne lesions** of an area of 6.4 x 8 mm. The orange-red fluorescence indicates the presence of **Cutibacterium acnes** within clinically non-evident (follicular impactions and microcomedones) and clinically evident (comedones, papules and pustules) lesions.

Acne is a common disorder of the pilosebaceous follicles with a multifactorial pathogenesis. It typically begins in adolescence when androgen hormones stimulate the production of sebum and proliferation of follicular epidermis. The openings of hair follicles become **clogged with oil secretion and corneocytes**. In consequence initially invisible lesions (microcomedones) and then clinically evident comedones develop. Microcomedones and

comedones are further colonized by *C. acnes* bacteria which promote inflamed **acne lesions** (papules and pustules) through the production of proinflammatory mediators, free fatty acids and porphyrins.

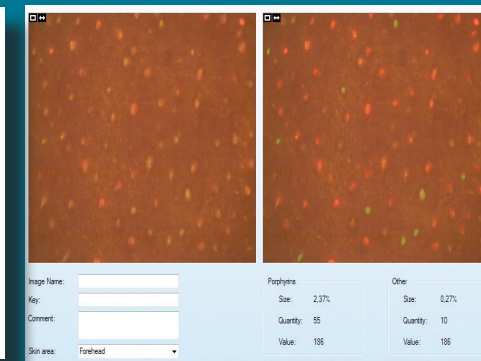
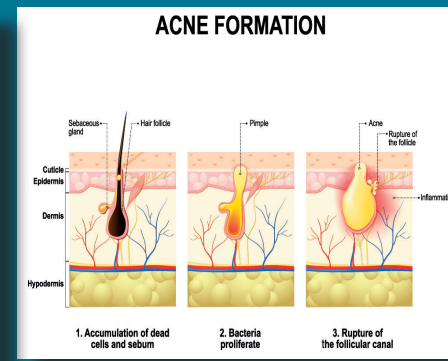
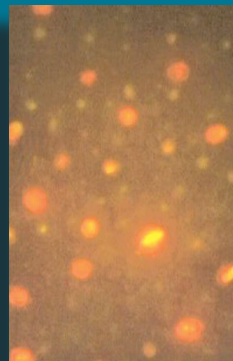
The **presence of porphyrins** can be demonstrated by orange-red fluorescence in the follicle openings when examining the skin under appropriate UV-A light. The intensity of follicular fluorescence and the extent of facial involvement are proportional to the population density of *C. acnes* and porphyrin content at the skin surface.

An improvement of acne is accompanied by significant reduction of the porphyrin concentration and the number of *C. acnes*, respectively.

**Advantages & Fields of Application**

There are numerous applications in cosmetology, especially in the field of skin impurities.

- Detection of **early invisible lesions** and visualization of advanced small acne lesions in the esthetic field.
- **Efficacy testing** of anti-bacterial products and drugs against *P. acnes*.
- Determination of the **comedogenic** and **comedolytic activity** of topically applied products.
- **Non-invasive**, easy to use and economic.
- Comfortable software for the evaluation of the **number and size** of the fluorescent spots.
- Possibility of distinguishing between the red-orange spots (**porphyrins**) and the yellow-greenish spots (**others**).



**Technical Data**  
 Dimensions: approx. 12 x 5.5 x 5.5 cm; Cable length 1.5 m; Illumination: 16 UVA- LEDs, 375...385 nm;  
 Measurement area: 6.4 x 8 mm; Resolution: 1280 x 1024; Camera button to freeze the image  
 Interface/Power supply: USB 2.0, type A connector;  
 Measurement principle: fluorescence  
 Computer: Windows® 10/11, performance must meet system requirements, USB 2.0; 3.0  
 Technical changes may be made without prior notice.

Courage+Khazaka electronic GmbH since 1986  
 Mathias-Brüggen-Str. 91 · 50829 Köln · GERMANY  
 phone +49 221 95 64 99 0 · fax +49 221 95 64 99 1  
 info@courage-khazaka.de · www.courage-khazaka.de

