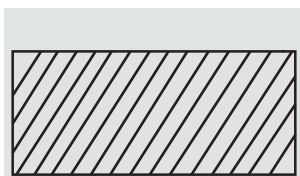




GENERAL INSTRUCTIONS FOR USE

1. Apply the **RILUMINATI 815** indicator coating thinly and evenly on the surface (coating thickness 30-50 µm). The paint forms a yellow homogeneous surface.
2. The drying time (dry to the touch) of the **RILUMINATI 815** indicator layer depends on the ambient temperature and should be observed (see table below).
3. After coating with the fluorescent indicator layer **RILUMINATI 815**, the black top coat **RILUMINATI 816** is applied thinly on the indicator layer. The top coat **RILUMINATI 816** must not be thicker than 40 µm. The paint forms a black homogeneous surface.
4. Observe the drying time (dry to the touch) of the black top coat **RILUMINATI 816** depending on the ambient temperature (see table below).
5. It must be ensured that the indicator layer **RILUMINATI 815** is completely covered by the cover layer **RILUMINATI 816**. In case of incomplete coverage, **RILUMINATI 816** should be applied again thinly and evenly.
6. Complete curing takes place in 24 hours. Afterwards, detection can be carried out by means of a UV light (365 nm) or by means of UV monitoring.

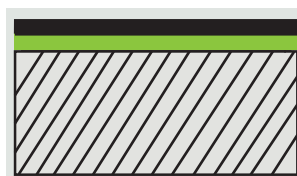
Ambient temperature	Drying time RILUMINATI 815	Drying time RILUMINATI 816
- 10 °C	300 min	240 min
0 °C	240 min	180 min
+ 10 °C	180 min	120 min
> + 20 °C	120 min	60 min



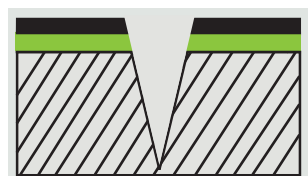
1. Choose position
Location or area to be monitored



2. Indicator layer
Apply **RILUMINATI 815** evenly and thinly



3. Top coat
Apply **RILUMINATI 816** evenly and thinly



4. Verify
When the cracks are torn open, the indicator layer becomes visible under UV light



RILUMINATI 815 & 816

EARLY DETECTION



FIND CRACKS AS THEY APPEAR!

Product features:

- ✓ Reliable, early and passive method for the detection of fatigue cracks
- ✓ Long-term monitoring in critical areas
- ✓ No information about crack location required
- ✓ Possibility for automated crack detection (remote monitoring) during running processes
- ✓ Excellent adhesion to steel surfaces due to the combination of elasticity and strength
- ✓ Testing under UV light
- ✓ Suitable for industrial application on steel surfaces
- ✓ High UV resistance
- ✓ Color strength and gloss are preserved for a long time
- ✓ Application temperature - 10 to + 80 °C

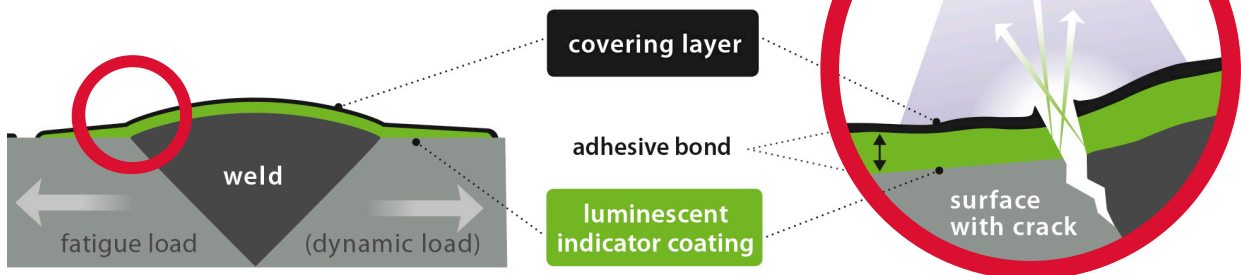
Two-component special coating based on an acrylic resin (pigmented):

RILUMINATI 815
Indicator layer, fluorescent



RILUMINATI 816
Top coat, black

Both layers of the system tear open when the steel is cracked and the crack edges of the indicator layer are exposed. At irradiation of the area with UV light (365 nm) the crack the crack glows green-yellow.



Your benefits:

- ✓ Low effort for the user due to one-time coating and large-area testing
- ✓ Uncomplicated application without special knowledge (visual inspection)
- ✓ Remote monitoring possible, cracks can be detected with naked eye or surveillance camera
- ✓ Monitoring possible during running process
- ✓ Even areas that are difficult to access can be reached

RILUMINATI is an innovative method for early detection of fatigue cracks.



RILUMINATI 815 & 816

EARLY DETECTION

MR **CHEMIE**
GmbH

FUNCTIONAL PRINCIPLE

RILUMINATI 815 emits light as fluorescence under UV light. This makes it possible to detect the developing crack.

RILUMINATI 816 covers the indicator layer and at the same time prevents the indicator layer from radiating in order to achieve the highest possible contrast between crack and indicator layer.

Both layers of the system tear open when the metal is cracked and the edges of the crack in the indicator layer are exposed. When the area is irradiated with UV light (wavelength 365 nm), the crack glows fluorescent yellow-green.

GENERAL INSTRUCTIONS FOR USE

Impurities such as rust, scale, varnish, oil and grease must be removed from the surface to be tested in order to achieve the best possible adhesion.

Shake the aerosol can well before use. When using the aerosol can, stir the can well. The use of **RILUMINATI 815** and **RILUMINATI 816** in the aerosol can is simple and straightforward. It is sprayed onto the dry and grease-free surface from a distance of 20 cm. The coats should be sprayed on quickly, without interruption, in a zigzag pattern to achieve a perfect result.

The spray can should not be held at an angle when spraying in order to avoid spray dropouts. The packaged product can be applied by spraying or rolling. Commercially available spray equipment and paint rollers for industrial use can be used for this purpose.

We recommend that you observe the safety regulations for handling dusts, as inhalation of the dust may impair the function of the respiratory organs. For further safety information, please refer to the safety data sheet.

Minimum shelf life: at least 3 years at room temperature and dry storage

Delivery forms: 500 ml aerosol can (12 cans / carton), 1 kg

RILUMINATI IS A LICENSED PRODUCT OF:

 **BAM**
Bundesanstalt für
Materialforschung
und -prüfung