



The following table describes the necessary protection measures depending on the risk classes. The values refer to an 8-hours-workday and a typical work process in surface crack testing. If the values are not kept, a work place specific radiation exposure analysis must be carried out. In this case, next to the daily values the yearly acceptable levels of exposure must be considered as well.

Risk class	Personal safety measures:	Technical safety measures:
0	Protection measures are not necessary. Note:	
1	Due to the necessary irradiation intensity for surface crack detection in material testing UV radiators of these risk classes are usually not sufficient.	
2	<ul style="list-style-type: none"> - Admission only for trained staff - Body covering protection clothes and protection gloves (UV-proof) - Eye protection by UV spectacles, from 2-1.4 acc. to EN 170 (e.g. art. no. B61 L) 	<ul style="list-style-type: none"> • Positioning of the UV-radiator below eye level to avoid a direct view into the radiator. • Marking of the UV-radiator with <ol style="list-style-type: none"> 1. „hazard note label "Attention: Ultra-violet radiation" 2. „Warning label "Attention: dangerous optical radiation" 3. Risk class • Marking of the work place with <ol style="list-style-type: none"> 1. prohibition sign: "admission for unauthorized persons forbidden" 2. Warning label "Attention: dangerous optical radiation" 3. hazard note label "Attention: Ultra-violet radiation"
3	<ul style="list-style-type: none"> - Admission only for trained staff - Body covering protection clothes and protection gloves (UV-proof) - Eye protection by UV spectacles for all persons in the working area (bystander) 	<ul style="list-style-type: none"> • Positioning of the UV-radiator below eye level to avoid a direct view into the radiator. • Marking of the UV-radiator with <ol style="list-style-type: none"> 1. „hazard note label "Attention: Ultra-violet radiation" 2. „Warning label "Attention: dangerous optical radiation" 3. Risk class 4. Traffic sign „Wear protective eyewear" • Marking of the work place with <ol style="list-style-type: none"> 1. prohibition sign: "admission for unauthorized persons forbidden" 2. Warning label "Attention: dangerous optical radiation" 3. hazard note label "Attention: Ultra-violet radiation" 4. Traffic sign „Wear protective eyewear"
4	<ul style="list-style-type: none"> - Admission only for trained staff - Body covering protection clothes and protection gloves (UV-proof) - Full face protection (visor) is necessary 	<ul style="list-style-type: none"> • Positioning of the UV-radiator below eye level to avoid a direct view into the radiator. • Marking of the UV-radiator with <ol style="list-style-type: none"> 1. „hazard note label "Attention: Ultra-violet radiation" 2. „Warning label "Attention: dangerous optical radiation" 3. Risk class 4. Traffic sign „Wear protective eyewear" • Marking of the work place with <ol style="list-style-type: none"> 1. prohibition sign: "admission for unauthorized persons forbidden" 2. Warning label "Attention: dangerous optical radiation" 3. hazard note label "Attention: Ultra-violet radiation" 4. Traffic sign „Wear protective eyewear" <p>Protect working area from unauthorized entry; labelling can be mounted on a door or a security cordon. During mobile testing installation of labels at a distance of 3 m from the UV source is sufficient.</p>

Risk class	E_{eff} [W/m ²]	E_{UV-A} [W/m ²]
0	0 bis $0,1 \times 10^{-3}$	0 bis 1
1	0,1 bis $1,0 \times 10^{-3}$	1 bis 10
2	1,0 bis 10×10^{-3}	10 bis 100
3	10 bis 31×10^{-3}	100 bis 300
4	> 31×10^{-3}	> 300