ULTRAVIOLET RADIATION DURING WELDING AND SOLDER-WELDING OF THE LOW ENERGETISTIC ARC METHODS

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ABSTRACT *Tested the intensity of UV during of the CMT and ColdArc welding methods of austenitic chrome-nickel steel with symbol X5CrNi18-10 steel and chromium ferritic steel with symbol X6Cr17 and during solder-welding steel with the symbols of the DX 54D and DP 600X, coated with a protective layer of pure zinc or zinc alloy and iron. Welding has been performed in the shielding argon or a mixture of argon, oxygen and carbon dioxide, while solder-welding has been shielded argon only. It was found that the intensity of the UV increases exponentially with an increase in the intensity of the welding current or solder-welding. In addition to the intensity of the emitted the ultraviolet affects the method of welding/ solder-welding and types of shielding gases and welding/solder-welding materials are practically meaningless.*

Keywords: *ultraviolet radiation, effective radiant exposure, welding, solder-welding*