

Method for butt-welding two steel sheets comprising the steps of: -Providing two steel sheets (1, 2), -On all the faces having a zinc based metallic coating thickness Z_{nth} above 3.5 microns and a steel sheet substrate (12) with a Carbon content above 0.15 % or a Silicon content above 0.5 % or both: removing at least part of said metallic coating to form an ablation area before welding (6) having a Zinc-based metallic coating thickness after ablation Z_{nab} which is equal to or lower than 3.5 microns and in such a way that the width of the ablation area after welding (8) is equal to or greater than 0.5mm, -butt welding said steel sheets (1, 2) using at least a laser source.