

The Functions and Benefits of Solar Flux as a Backup



1. Removes dirt and oxides

Solar Flux contains efficient compounds which remove troublesome foreign matter by reducing or floating it. Dirt and oxidized metal will not remain to contaminate the joint when the operator makes his welding pass.

2. Prevents burn-through

Solar Flux, applied to the underside of the seam, is a good conductor of heat and acts efficiently to disperse localized high temperature areas. With more uniform heating, localized areas of uncontrolled penetration and stress are less likely to occur. Solar Flux, applied to metal of low heat conductivity such as Inconel, reduces the tendency of the metal to overheat during welding.

Oxide formation without Solar Flux No oxide with Solar Flux

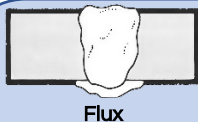


3. Protects the back side of the seam

Used as a backup, Solar Flux effectively prevents the oxidation of the underside. The protective coating of Solar Flux inhibits many troublesome chemical combinations from taking place and absorbs the more refractory elements in the slag.

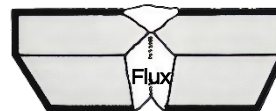
4. Produces clean tack welds

By protecting the metal which surrounds a tack weld, Solar Flux assures an oxide-free seam for subsequent welding. The clean tacks are picked up quickly and evenly, and their weld metal flows smoothly into the seam, without oxide inclusions.



5. Aids even penetration

Seams backed with Solar Flux are easier to weld and the welding pass may be made with a uniform application of heat to all areas. The wetting action of Solar Flux allows the molten weld metal to penetrate the seam thoroughly and fuse solidly with the metal at the root.



6. Supports molten metal

Backed up with Solar Flux, the molten weld metal in the seam is supported by the adhesion of the flux. Root beads are smoothed out; the root weld metal becomes firmly bound to the alloy.