

Liquid Metal Case Study

Anti Slip to Protect Helicopter Workers

Anti slip surfaces are created on the legs of the Puerto Rico Power Authority's helicopter fleet to protect workers standing on the skids whilst working



A helicopter belonging to the Puerto Rico Power Authority. Some maintenance jobs involved workers standing on the legs of the helicopter, which had anti slip tape applied as a means of protection

Defect

Some maintenance tasks carried out by the fleet of helicopters required workers to stand on the metal legs. These legs had anti slip tape applied.

The harsh environments the helicopters operated in meant new tape had to be applied once a month. This was time consuming and costly.

There were also concerns about the safety of the tape. The frequency with which it became worn and damaged led the Power Authority to seek a longer term, more trustworthy alternative.

Solution

Sylmasta suggested coating each helicopter skid with **Liquid Metal Epoxy Coating** and then applying silicon carbide grit to the wet surface, creating a robust anti slip surface.

Liquid Metal offers high strength adhesion to all materials. The coating was applied across the top of each skid, forming a new metallic layer.

Silicon carbide was then deposited over the epoxy, completely covering the skid. Once Liquid Metal cured, the grit was permanently bonded to the helicopter leg.

Result

Within three days, the Power Authority had successfully carried out the procedure to every helicopter in their fleet.

The skids are re-coated with additional Liquid Metal and silicon carbide every five years. This is a far cry from the labourious task of applying anti slip tape once a month.



Liquid Metal was coated onto the legs and silicon carbide deposited over the top. Once the epoxy had cured, the grit was permanently bonded to the skids to create a long term anti slip solution