

Broadband Radar Characterization of IR Reflective Material

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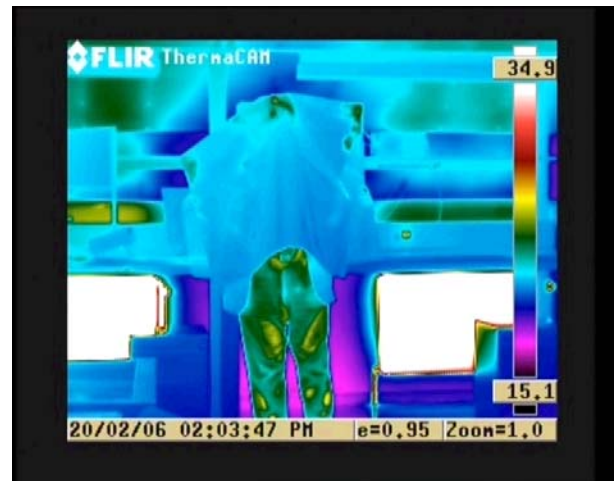
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ABSTRACT

The Belgian company SIOEN developed a PVC tissue coated with Aluminum flakes to cover bio-gas-installations. Since it is highly reflective like the GHOST BDU from the German company TEXPLORER, we believed it could be used as IR camouflaging poncho which was confirmed by IR measurements performed with the QWIP SC3000 thermal imager (from FLIR Systems). SIOEN was also interested by the radar signature reduction, something which we expected impossible because of the basic antinomy between IR and radar camouflage requirements. Therefore, we made averaged (within broad frequency bands) measurements of the RCS reduction by means of SAR images of a bare trihedral corner reflector and the same target covered by this PVC tissue and, as expected, the RCS reduction appeared to be a small increase of a few dB.



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