

Hard Black Non-Reflective Anodising at Room Temperature

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed hard, black non-reflective anodizing process on Aluminium alloys. The hard anodic oxide coatings produced under special conditions have high hardness values and very good non-reflective characteristics compared to normal black anodic coating. Hard anodic oxide coatings find application in the engineering industry for components where abrasion resistance is the required in addition to optical properties.



Salient Features

Hard, Black, non-reflective anodizing process is carried out at room temperature compared to conventional hard anodizing process, which is carried out at -5°C , thus saving a considerable cooling load. The burning and powdering problems associated with conventional hard anodizing process are eliminated resulting in no-rejection.

Major Specifications

Thickness (micron)	ASTM-B-244 Eddy Current method	50 ± 10 micron
Microhardness (HV)	ASTM-E 384, Diamond Indenter	250 - 500
Insulation value (Electrical)	10-100 V range, DC	30-1.5 $\text{G}\Omega$

Technology Transfer

URSC-ISRO offers to transfer this hard, black non-reflective anodizing process on Aluminium alloys developed by URSC to industries in India with adequate experience and facilities. Industries interested in obtaining knowhow may write giving details of their present activities, infrastructure and facilities.

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