

TECHNOLOGIES TRANSFERRED FROM ISRO

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Rubber Based Adhesives

(Technology Transferred to M/s ANABOND Pvt. Ltd.)

ISRO has successfully developed a good number of rubber based adhesives to meet different applications in Launch Vehicles and Satellites. These adhesives may also find industrial applications. ADUX 4845, Adbond PN 2901, NR-M-16 and RCN-5/PCR -1 are some of the rubber based adhesives developed by ISRO.

ADUX 4845

ADUX 4845 is a nylon carrier supported film adhesive developed for bonding aluminium face skins to aluminium honeycomb core, required for the fabrication of light weight sandwich structures. This adhesive provides strong bonding on metallic substrates. The presence of the carrier in the film improves the handling strength of the film, controls the glue line thickness and provides higher peel and shear strength.

Adbond PN 2901

Adbond PN 2901 adhesive has been developed to serve bonding of Velcro to metal surfaces. The adhesive formulation is based on reactive blend of rubbers, phenolic resins, epoxy resins and tackifiers in a suitable solvent mixture and is attained after the cure under ambient conditions. The adhesive joint is capable of withstanding the space environmental conditions.

NR-M-16

NR-M-16 is used for bonding of steel and vulcanised natural rubber pads. A bonding agent, NR-M-16, consists of a metal primer, a rubber treatment solution and a two component adhesive system. The bonding agent provides strong bonds and the rubber to metal joint shows rubber failure when the joint is pulled apart.

RCN-5 / PCR-1

RCN-5/PCR-1 adhesive system consists of a primer coat RCN -5 and overcoat PCR 1 developed for bonding the nylon reinforced, vulcanised neoprene bellow to metallic end adaptors and to position the bellow in the folded condition. This provides a strong and leak proof joint between steel and neoprene bellow and is able to withstand the instantaneous pressure build up. The adhesive joints have the ability to sustain the performance under the flight environmental conditions.

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