

INTEREST EXPLORATION NOTE

TECHNOLOGY

FROM ISRO

COATING COMPOUND SESCO 125

Vikram Sarabhai Space Centre has developed different types of coating compounds catering to specific applications in Launch Vehicles and Satellites. These materials may also find various industrial applications. These are derived from resins and different curing agent combinations, modified with various classes of materials such as flexibilizer, toughening agent, fillers, pigments, cure accelerators etc.

SESCO-125 is a Poly Dimethyl Siloxane (PDMS) based room temperature curable silicone based coating system, containing inorganic fillers and other additives, which imparts flame retardancy to the system on which it is coated. It is used in the flame retardant coating on launch pedestals and in liquid engine. SESCO-125 is processed by mixing polymer and fillers in sigma mixer and blending in triple roller mill. Part A of the product is a grey colored, viscous material and Part B is Transparent.

The Centre needs approximately 4 tons of SESCO-125 per annum.

Product Specifications

1. Density, g/cc	:	1.5 + 0.2
2. Tensile strength at RT, ksc	:	8 -18
3. Elongation at RT, %	:	70 - 200
4. Lap shear strength on Al, ksc	:	3 -7
5. Lap shear strength on PC-10, ksc	:	3 -7
6. Specific heat at 100 °C cal/g/ °C	:	0.25 – 0.35
7. Thermal conductivity at 100 °C, al/ °C /sec.cm x 10 –4	:	8.5 + 1.0
8. Limiting oxygen index, %	:	33 (min)

ISRO offers to license this know-how to capable small/medium scale specialty silicone based polymer manufacturers, looking for new product line. Interested parties are requested to respond immediately with details of their present activities and product lines, capabilities, infrastructure, their own product assessment and their plans for implementing the technology.

For further details, please contact:

TECHNOLOGY TRANSFER & INDUSTRIAL CO-ORDINATION DIVISION

VIKRAM SARABHAI SPACE CENTRE

INDIAN SPACE RESEARCH ORGANISATION

THIRUVANATHAPURAM- 695 022

PH: 0471- 2564081/2565749

E-MAIL: ttic@vssc.gov.in