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**Product Name :**

Polarizing Filter Stress Demonstrator

**Product Code :**

SLE/PHY/268



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# Description :

**Polarizing Filter Stress Demonstrator** (Product Code: SLE/PHY/268) is a large-scale optics demonstrator that uses polarising filters to reveal stress patterns in clear plastic pieces, used in physics and engineering classrooms. Its 5 inch polarising sheets are mounted on a graduated frame on a wooden stand, and it is supplied with clear acrylic pieces of different shapes to squeeze between the filters. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**,an OEM manufacturer, at its own factory in Ambala, India.

## Specifications

| Parameter | Detail |
|---|---|
| Scale | Large-scale demonstrator |
| Filters | 5 inch polarising sheets |
| Mounting | Graduated frame placed on a wooden stand |
| Test pieces | Clear acrylic pieces of different shapes (supplied) |
| Demonstration | Clear pieces are placed between the filters and squeezed, and the stress patterns are observed |
| Product code | SLE/PHY/268 |
| Manufacturer | Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM |
| Country of origin | India (made in Ambala, Haryana) |

## What Is the Polarizing Filter Stress Demonstrator Used For?

The demonstrator introduces photoelasticity. Clear acrylic becomes birefringent when it is stressed: polarised light passing through a loaded piece has its polarisation altered by different amounts wherever the stress differs, and viewing through the second filter turns those differences into coloured bands. The bands crowd together near corners, holes and the points where force is applied, so students can see where a shape is most highly stressed — the reason engineers round off corners in brackets and beams. It doubles as a physics demonstration kit for polarisation itself.

Stand the demonstrator in front of a bright, even light source such as a window or a lamp, and squeeze each acrylic piece slowly and steadily so the class sees the pattern grow; release it and the colours fade. Compare the different shapes one after another. Clean the acrylic and the polarising sheets with a soft cloth only, since scratches show up as marks in the pattern.

## OEM Manufacturer

ScienceLab, the trading name of Jain Scientific Equipments Private Limited, is the OEM (original equipment manufacturer) of the Polarizing Filter Stress Demonstrator and builds it at its own licensed factory at Saha, Ambala, Haryana, India. Schools, colleges, institutions, dealers and importers receive it factory-direct, with quotations and any later requests for replacement acrylic piece

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