



# NPO STEKLOPLASTIC

## TECHNICAL DATASHEET

### SYNLAY

|                                                           |                                                                                                                                                                                                                                                                                                                                                            |                |                 |                 |                 |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------|-----------------|-----------------|
| <b>Description</b>                                        | Synlay (HGM) high-tech sheet semi-finished product based on epoxy binder and hollow glass microspheres (HGM) is designed for molding of products from syntactic composites of low-density.<br>Products molding with the use of SYNLAY semi-finished product is carried out by direct extrusion method, as well as by vacuum and autoclave molding methods. |                |                 |                 |                 |
| <b>General Properties</b>                                 | The mass content of the binder in the semi-finished product is 58 to 65%.<br>SYNLAY semi-finished product is supplied in the form of blocks of 200 x 250 mm of various thicknesses (from 2 to 20 mm),<br>Shelf time of semi-finished product:<br>at a temperature not exceeding 20°C up to 100 days;<br>at temperatures below 0°C up to 500 days.          |                |                 |                 |                 |
| <b>Physical and mechanical properties (nominal value)</b> |                                                                                                                                                                                                                                                                                                                                                            |                |                 |                 |                 |
| <b>Property</b>                                           | <b>Unit of measure</b>                                                                                                                                                                                                                                                                                                                                     | <b>PES-0.3</b> | <b>PES -0.4</b> | <b>PES -0.5</b> | <b>PES -0.6</b> |
| <b>Density</b>                                            | g/cm <sup>3</sup>                                                                                                                                                                                                                                                                                                                                          | 0.3 ± 0.01     | 0.4 ± 0.01      | 0.5 ± 0.01      | 0.6 ± 0.01      |
| <b>Content of HGM in semi-finished product</b>            | % mass                                                                                                                                                                                                                                                                                                                                                     | 75             | 50              | 35              | 26              |
| <b>Compression strength</b>                               | MPa                                                                                                                                                                                                                                                                                                                                                        | 5-7            | 10-12           | 23-25           | 45-50           |
| <b>Thermal conductivity</b>                               | W/mK                                                                                                                                                                                                                                                                                                                                                       | 0.05-0.06      | 0.07-0.08       | 0.1-0.12        | 0.15-0.18       |
| <b>Packaging and storage</b>                              |                                                                                                                                                                                                                                                                                                                                                            |                |                 |                 |                 |
| <b>Packaging</b>                                          | Blocks of SYNLAY semi-finished product are packed in corrugated cardboard boxes with dimensions of 300 x 250 x 250 mm and weight of no more than 10 kg.<br>* Package can be changed according to the customer requirements.                                                                                                                                |                |                 |                 |                 |
| <b>Transportation</b>                                     | In covered vehicles.                                                                                                                                                                                                                                                                                                                                       |                |                 |                 |                 |
| <b>Shell Storage</b>                                      | In a dry place on shelves with a relative humidity of not more than 80%.                                                                                                                                                                                                                                                                                   |                |                 |                 |                 |
| <b>Health Safety Requirements</b>                         | According to SDS                                                                                                                                                                                                                                                                                                                                           |                |                 |                 |                 |
| <b>Fire safety</b>                                        | Hardly combustible                                                                                                                                                                                                                                                                                                                                         |                |                 |                 |                 |

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