Modules –
Cam cover for passenger cars

GENERAL FUNCTION

ElringKlinger’s cam covers for passenger cars combine maximum functionality with minimum weight. Besides the main function of sealing towards the cylinder head the fully integrated ventilation system including oil separation are key functions of the complex cover modules.

TECHNOLOGY

Cam covers are produced by injection molding of thermoplastics with various glass fiber contents. The material properties of thermoplastic allows multi functional integration by using different kind of welding processes. Furthermore, plenty of other components like fixation bolts, heat shields, insert mounts and gaskets can be assembled to the main body. The variety of different assembly processes allows to create a ready-to-assemble product with maximum integration.

- MULTI FUNCTIONAL INTEGRATION
  The plastic injection process and physical properties of thermoplastics allow an easy multi functional integration compared to other technologies like aluminum die-casting. Furthermore, the injection molding process leads to a bigger freedom in designing specific structures.

- VENTILATION SYSTEM AS CORE TECHNOLOGY OF CAM COVERS
  Due to the various integration possibilities the integrated ventilation system became the core technology of cam covers. The integrated oil separation system technology of ElringKlinger is developed to achieve an optimum performance and energy consumption ratio. (For further details about ElringKlinger’s oil separation solutions please see fact sheet “Oil separation system”.)

- HEAT RESISTANCE
  A high temperature resistance is possible with the right material mixture. The combination of high-performance thermoplastics, sealing materials and the integration of in-house heat shields result in the practical use of plastic covers even under hot conditions.
BENEFITS

PRODUCT BENEFITS

- High weight reduction potential
- Multi function integration (sealing, oil filler, fuel rail, mounts, fixation bolts, wire clips, various ventilation systems including oil separation, heat shielding)
- Possible combination with intake manifold
- Space saving by smallest wall thickness
- Better NVH performance due to high damping factor
- High dimensional accuracy
- Easy assembly with low cycle time for customers

MANUFACTURING PROCESS

- No rework necessary
- Short cycle times / high automatisation
- High process stability and repeatability

ELRINGKLINGER – YOUR PARTNER FOR CAM COVER MODULES


YOUR CONTACT

Philipp Ruez
Phone +49 7123 724-88350
E-mail philipp.ruez@elringklinger.com