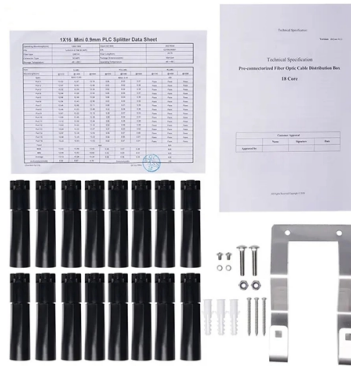


Grinding of optical splitters



Overview

Key Steps in the Grinding Process for Optical Splitters The grinding process for optical splitters involves several essential steps: endface cutting, cleaning, rough grinding, fine grinding, polishing, and inspection. Each step aims to achieve a flat, smooth surface. This process demands a high level of accuracy and skill, as even the smallest imperfection can greatly affect the performance of optical surfaces to final or near-final surface finish and figure. In this paper, a comparison of grinding techniques and materials is performed. Flat and spherical surfaces were ground in three different substrate materials: K7 glass, chemical vapor deposited (CVD) silicon carbide. Optical grinding is a foundational abrasive machining process used in the manufacturing of optical components such as lenses, mirrors, prisms, and windows. This process minimizes insertion and return loss, enhancing optical performance.



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