

An activator of polymer nanocomposite blends comprises a sealed container vertically mounted on shock absorbers with manifold and shutoff valves and concentrators of ultrasonic vibrations placed therein with magnetostrictive transducers. The activator comprises a cylindrical container, vertically mounted on the base via shock-absorbers and an annular bracket, which is provided with a pipe for supplying coolant and a pipe for its drainage, a tube for connecting the cooling areas, nozzles with plug valves, a lid with a central hole with shock-absorbing and sealing gasket for passage of a pipe with a plug valve, which is connected to the central channel of the concentrator of ultrasonic waves vertically installed and provided with a cylindrical base with an external thread, which engages with an internal thread of a holder attached to the inner wall of the container in its upper part via a damping and sealing annular gasket. On the end part of the concentrator the emitting packets and a feedback packet are rigidly secured. The concentrator enters an inner cavity of the exponential concentrator centrally mounted and rigidly secured on the supports using sealing and damping annular gasket with a beveled upper surface, whose level coincides with the lower inner surface of discharge nozzles and sealing and damping annular gasket secured by stops, which has a central hole, to which a pipe is connected, passing through the central hole with a sealing and a damping gasket of the bottom seal and is provided with a plug. Along its end part the emitting packages and a feedback packet of a magnetostrictive transducer are secured.