Laser plastic welding, also often referred to as transmission welding, is a process of bonding plastic parts using focused laser radiation. A laser beam is directed onto two plastic parts, one that is transparent to the laser energy and one that absorbs the energy. This creates a joint melting pool of both parts and a weld seam that strongly bonds the two plastic parts together. Laser welding is a good alternative to chemical adhesives or mechanical assembly as it provides high-quality seams with minimal mechanical stress, no surface damage, and minimal flash and particle development.

Our Cesa™ Laser Additives portfolio includes laser welding solutions that create high-quality, durable welds for various thermoplastics. The additives are delivered as concentrates to use with a let-down ratio of typically 1 to 4% or as ready-to-use formulations to use without further dilution. Solutions are available for the laser welding of transparent/black, transparent/color, color/color, and black/black parts. Our team of experts provides product guidance and technical support for your specific project.

APPLICATIONS

- Automotive parts
- Electrical and electronic housings
- Large and small appliance components
- Other consumer products, e.g., waterproof watches, and eyewear frames
- Healthcare products – ISO and USP pre-tested solutions are sold as Mevopur™ Healthcare Functional Additives

BENEFITS

- Produces strong, durable, and consistent seams
- Available for polyolefins, TPE, ABS, SAN, PA, PC, PMMA, and others on request
- Delivered as concentrates or ready-to-use formulations
- Can be combined with color into a single product
- Specific regulatory compliance available on request, e.g., UL 94 recognition, EU and US food contact
- Product guidance from our experts

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