

METHOD OF MAKING INJECTION MOLDING COOLED THREAD SPLIT INSERTSABSTRACT OF THE DISCLOSURE

A method of making pairs of thread splits inserts used to injection mold bottle preforms. Machining a hollow outer part of the pair of thread split inserts with an opening therethrough and outer portions of two cooling conduits extending from the opening therethrough to respective inlets and outlets. Making an inner part of the pair of thread split inserts by injection molding a ceramic core with the required shape and investment casting the inner part around the ceramic core. The outer surface of the inner part having grooves to partially form inner portions of the two cooling fluid conduits. Then machining the cast inner part to fit in the opening through the outer part. Mounting the outer part around the inner part with the inner and outer portions of the two cooling fluid conduits aligned. Applying brazing material between the inner and outer parts and heating them in a vacuum furnace to integrally braze them together. Finally, cutting the integral inner and outer parts in half to form the pair of thread split inserts with each of the thread split inserts having one of the cooling fluid conduits therein.

Figure 1