BELI-ZELL – properties and characteristics

+ BELI-ZELL is suitable for use with almost any material, as well as traditional and modern material
    - Identical and different materials with each other
    - The joint surfaces of the assembly parts can vary from rough to plane
    - Open porous materials (as foams, expanded polystyrene, wood) up to closed porous materials (as metals, glass fibre / carbon fibre laminates or tubings) will be bonded safely
    - layers of fabrics can be used to make sandwich parts or to reinforce constructions, e.g. a foam - fabric - balsa sandwich or wings planked with balsa / obeche and glass- or carbon fabric underneath as reinforcement
    - A lot of materials, which commonly need primers, will be bonded reliable in most cases – but do not expect wonders, because some materials (e.g. teflon-coated, thermoset material) cannot be bonded or only with very sophisticated adhesives and processes
    - Cured BELI-ZELL is completely waterproofed
+ BELI-ZELL fills cracks and small gaps between the assembly parts, without additional fillers. Thus the joint surfaces need not to be close-fitting. Gaps are very common with broken foams parts.
+ BELI-ZELL contains no solvents, diamine or fillers
+ Small amounts go a long way - the adhesive expands 3 to 4 times of its original volume. 14.5 gram BELI-ZELL equals about 35 gram balsa cement
+ bonding joint can be easily reworked and sanded after curing
+ no additional kicker accelerators necessary (e.g. with super glues)
+ BELI-ZELL is applicable in a wide temperature range
    - Service temperature between -40°C up to 80°C, short time 100°C
    - The bonding joint does not soften at high temperatures (as with 5-minute epoxy adhesives)
    - Reliable bonding joint even at a high temperature drift (e.g. model boats)
+ The bonding joint remains flexible, which is preferable with elastic material like foams. No glass hard or brittle spots, which occur regularly when using super glues or epoxy adhesives. When bonding hard material like metal only a little amount of BELI-ZELL is needed. This thin film bonding results in a stiff joint between the assembly parts.
+ Even if the same spots needs to be repaired repeatedly, the quality of the bonding joint does not decline – unlike super glues or 5-minute epoxy adhesives.
+ Unlike contact adhesives BELI-ZELL gives enough time to align the assembly parts
+ Good value since only a small amount of BELI-ZELL is need and BELI-ZELL is a light adhesive (compared to super glues and epoxy adhesives) – 14.5 gram of BELI-ZELL bond a lot more than it appears at first sight
+ Cured BELI-ZELL shows a fine pored surface, which is a good spare for missing or broken parts – especially for models made of foam
+ No mixing necessary hence no mixing errors
+ Precision applicator makes the application of BELI-ZELL easy and prevents wrong dosing
+ Very light adhesive, average density 0,25 - 0,33g/cm^3 after curing (epoxy adhesives without fillers about 1,3 - 2,0g/cm^3)
+ BELI-ZELL is available in three open times
    - Fast - finally cured within 4-7 minutes: for rapid repair , fixation
    - 10 minutes - setting time 7-10 minutes: for ambitious modellers and maximum adhesive strength
    - 60 minutes - setting time 45-60 minutes: for planking wings, large parts or when time for accurate alignment is essential
+ Continuous working hence the assembled parts have to be fixed only for a short time – around open time + 5-10 minutes (does not apply to BELI-ZELL fast). Recommendation: Use crepe tape or needles for fixing to allow curing of BELI-ZELL simultaneously under the tape.
  It is not necessary to press the parts – just make sure that the assembled parts stay in place.

BELI-ZELL - application

+ A versatile structural adhesive for the ambitious modeller
+ BELI-ZELL fast
  - Recommended: fast repair, fixation
  - Completely cured after 4-7 minutes and can exposed to load
+ BELI-ZELL 10min
  - Recommended: all fields of industrial bonding / making models / do it yourself, when maximum final strength, processing and bonding quality is required
  - open time / setting time adapted to practical needs, even complex work pieces can be aligned precisely and fixed properly
  - Optimal bonding characteristics with open porous material (e.g. all kind of foam, wood, mineral material) by extensive cross linking. Outstanding bonding results with closed porous material, like metal, laminate, glass fibre-/carbon fibre-tubings and frames/ribs, …
+ BELI-ZELL 60min
  - Recommended: adhesive for planking, large parts or reinforced sandwich constructions (e.g. extra layer of glass fibre or carbon fibre)
  - Extra-long open time to allow application of BELI-ZELL on large surfaces or when alignment of parts is time-consuming or critical
  - Weight saving (about 40%), because only little amount of BELI-ZELL is necessary (expands 3 to 4 times of its original volume and fills gaps) plus low density of adhesive