ALVERTEX® FASTONE II

TECHNOLOGIST Q&A | 20 KEY QUESTIONS

Ready technical answers for Technical Directors, R&D and laboratories

Purpose: give ALVENTUS representatives ready, technically disciplined answers to typical questions before testing FASTONE II. Answers are based on the supplied ALVERTEX® FASTONE II PDS and public technical data for products of similar application.

Key message: FASTONE II is a close functional alternative in the quick-hardening segment, with an overlapping quick-hardening profile and the same headline 20-minute-to-2-hour handling window and 10–30 MPa at 6 hours.

1. What is FASTONE II?

ALVENTUS: A cementitious quick-hardening additive developed for rapid-hardening systems.

Technical basis: *PDS: Cementitious Quick Hardening Additive.*

2. What is its key advantage?

ALVENTUS: It combines adjustable handling time of about 20 minutes to 2 hours with high early strength and crack resistance.

Technical basis: *PDS: advantages section.*

3. How is handling time controlled?

ALVENTUS: With general setting modifiers such as tartaric acid and citric acid.

Technical basis: *PDS: handling time can be adjusted with general setting modifiers.*

4. What dosage is recommended?

ALVENTUS: 5–25% by weight of cement. The optimum level must be established in the target formulation.

Technical basis: *PDS: additive amount 5–25%.*

5. What early strength is stated?

ALVENTUS: 10–30 MPa after 6 hours of agent aging.

Technical basis: *PDS: 10–30 MPa after 6 hours.*

6. Does it reduce shrinkage?

ALVENTUS: Yes. The PDS states that its expansion characteristics can reduce self-shrinkage and drying shrinkage.

Technical basis: *PDS: crack resistance / expansion characteristics.*

7. What is the mechanism?

ALVENTUS: Initial strength is obtained by void filling with ettringite formed from hydration of amorphous calcium aluminates before cement hydration starts.

Technical basis: *PDS theoretical reaction.*

8. What is the Blaine fineness?

ALVENTUS: 6,000 cm²/g.

Technical basis: *PDS general properties.*

9. What is the specific weight?

ALVENTUS: 2.92.

Technical basis: *PDS general properties.*

10. What does it look like?

ALVENTUS: Greyish white powder.

Technical basis: *PDS general properties.*

11. How is it packed?

ALVENTUS: 25 kg bags and 1,000–1,200 kg jumbo bags.

Technical basis: *PDS general properties.*

12. Where can it be used?

ALVENTUS: Quick-hardening grout, self-leveling material, quick-hardening repair material, decorative mortar and instant demolding of small products.

Technical basis: *PDS usage list.*

13. Is it suitable for non-shrink/quick grout?

ALVENTUS: Yes. Quick-hardening grout is explicitly listed; shrinkage compensation is also part of the product profile.

Technical basis: *PDS usage and advantage.*

14. Can it be used in self-leveling systems?

ALVENTUS: Yes, self-leveling material is explicitly listed.

Technical basis: *PDS usage list.*

15. Can it be used for decorative mortar?

ALVENTUS: Yes, decorative mortar is explicitly listed.

Technical basis: *PDS usage list.*

16. Can it support fast demolding?

ALVENTUS: Yes. Instant demolding of small products is explicitly listed.

Technical basis: *PDS usage list.*

17. Is it compatible with OPC?

ALVENTUS: The PDS mechanism is described around cement hydration and ettringite formation, but it does not provide a universal compatibility statement. ALVENTUS recommends testing with the customer's cement.

Technical basis: *PDS mechanism; formulation-specific qualification is required.*

18. How should comparative testing be conducted?

ALVENTUS: Use the same cement, sand, water, modifier, dosage basis and curing conditions, then compare handling time, flow, 3/6/24 h strength and shrinkage/expansion.

Technical basis: *ALVENTUS qualification approach; published benchmark data.*

19. What is the strongest argument versus BEFORM?

ALVENTUS: A very close functional profile: both target quick hardening, adjustable 20-minute-to-2-hour handling time, early strength and crack/shrinkage control. FASTONE II additionally offers 25 kg and jumbo-bag packaging in the supplied PDS.

Technical basis: *ALVERTEX PDS + public data on comparable products.*

20. Can ALVENTUS promise that FASTONE II is a drop-in replacement?

ALVENTUS: No. The correct technical position is that it is a strong functional alternative whose equivalence must be confirmed in the customer's formulation by controlled testing.

Technical basis: *Technical qualification principle.*

How to answer the hardest question: “Why should we test FASTONE II?”

“Because FASTONE II is not simply another accelerator. Its published profile is very close to BEFORM: adjustable 20-minute-to-2-hour handling time, 10–30 MPa at 6 hours, high fineness and expansion-based crack/shrinkage control. We propose a controlled side-by-side test in your own formulation rather than asking you to accept a claim without evidence.”

Recommended comparison program

- Handling time at equal modifier level
- Flow / workability
- Strength at 3 / 6 / 24 h
- Linear deformation / shrinkage and crack resistance
- Demolding time and surface quality where relevant
- Temperature sensitivity
- Modifier compatibility

Note: this document supports technical communication and does not replace PDS, SDS, CoA or laboratory reports.