



WACKER

POLYMERS

MORE MARKET SUPPORT
BURGHAUSEN
TECHNICAL CENTER

CREATING TOMORROW'S SOLUTIONS

HOW DO WE POOL WORLDWIDE
EXPERIENCE AND USE IT TO OUR
OWN ADVANTAGE?

BENEFIT FROM CUTTING-EDGE TECHNOLOGY AND GLOBAL MARKET EXPERTISE

How do we adapt our products quickly to new requirements? Where do we get good ideas for innovations? Are there global findings or projects from which we can learn? Our Burghausen technical center can help you answer such questions critical to your company's future.

We are the market leader, and you can rely on 50 years of experience

WACKER POLYMERS invented dispersible polymer powders and has been the world leader in polymer binders for fifty years. Our success is the fruit of ongoing research, product optimization and market development, geographically and in terms of applications. We have not only built up extensive experience and data stocks during this time, but have also devised WACKER test methods that undergo ongoing refinement in our technical centers around the world.

Why not work with experts who seek to achieve more?

Our Burghausen technical center consists of several highly specialized application laboratories, which solve extremely challenging problems for customers in Europe. Why not benefit from our experts' knowledge, dedication and creativity in construction-related issues and let them develop value-adding products and formulations for you?



Profit from a Global Network

Thanks to the intensive on-site support we provide for the European market, we are always familiar with current issues; and thanks to our global network of VINNAPAS® technical centers, we are aware of future trends, too, from every corner of the world. The immediate proximity of the WACKER POLYMERS research department and the fact that we cooperate closely with universities and associations furthermore guarantee you access to all important developments in the construction chemicals sector.

WHAT WE OFFER

PRACTICAL SUPPORT IN YOUR FIELD OF APPLICATION



The functionality of mortars and other cementitious systems is crucial to many construction tasks. We can help you optimize key properties of your products, adapt them to meet new customer requirements or reformulate them for new applications – and we are especially open to innovative and extremely challenging projects. Just contact us!

We offer support in the development and optimization of:

- Tile adhesives
- Mortar components for exterior insulation and finish systems (EIFS)
- Self-leveling compounds
- Shotcrete
- Other dry-mortar and pasty construction products

WHAT WE ADD

COMPREHENSIVE KNOWLEDGE OF PREMIXED MORTARS



WACKER POLYMERS has 50 years of experience in the use of organic and inorganic mortar additives, enabling you to profit from our comprehensive knowledge on the combination of different chemicals, their compatibility and possible side effects.

This expertise is a valuable key to success, particularly for formulations containing organic binders, cellulose ethers, rheology-controlling additives and superplasticizers.

Whether for tile adhesives, EIFS or self-leveling compounds, our pooled expertise enables us to develop the perfect dry mortar formulation for you; mortars that will meet national and international standards as well as current requirements concerning workability, environmental compatibility and value stability.

Here are some examples of where we offer assistance:

- Assuring defined water uptake/ hydrophobicity on mortar or surfaces
- Controlling and adjusting air content with surface-active agents
- Hardening and setting of hydraulic and non-hydraulic systems
- Handling of different kinds of accelerators and retarders
- Reinforcing mortar with fibers, either for an immediate or a long-term effect

TILE ADHESIVES



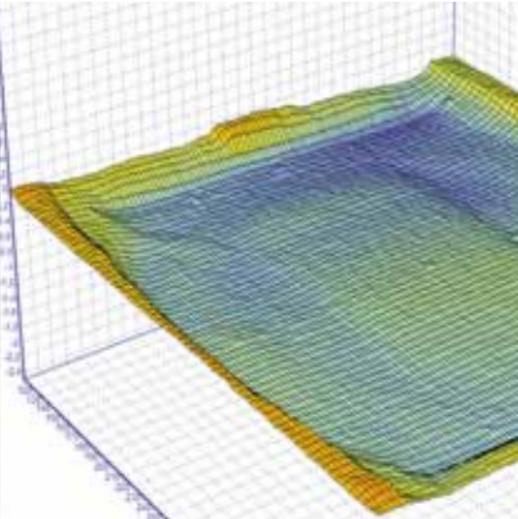
One example of an unusual test method is our outdoor weathering rig, which provides reliable long-term data on specific tile-adhesive formulations.

Flexibility, non-slump properties, adhesion, mechanical strength and good workability are the crucial characteristics of a tile adhesive that guarantees perfect and economic tile-laying. We perform numerous tests to obtain this high quality. In doing so, we pay particular attention to the latest tile-market trends and to the value enhancement and cost effectiveness of our solutions.

Test Methods

- Determination of slip (EN 1308 and WACKER method)
- Determination of open time via tensile adhesive strength (EN 1346)
- Determination of wetting properties (EN 1347 and WACKER method)
- Determination of tensile adhesive strength (EN 1348)
- Determination of transverse deformation (EN 12002)
- Determination of setting time (Vicat)
- Determination of shear strength (EN 1324 and DIN 18156/3)
- Determination of setting properties via the temperature curve
- Determination of wetted weight
- Determination of correction time
- Determination of stability under realistic conditions on a large outdoor weathering rig (DIN 53166, ISO 2810, EN 1015-21)
- Outdoor weathering (evaluation according to ASTM 3719, ISO 4628)
- Determination of bulk density of fresh mortar
- Determination of viscosity
- Determination of acoustic insulation

SELF-LEVELING COMPOUNDS



The European standards for screeds and self-leveling flooring compounds define methods for testing the abrasion resistance of cementitious compounds intended for wearing surfaces. There are three such test methods, each based on the specific experiences and traditions of individual EU countries. We have the facilities for performing these tests in our laboratory.

Self-leveling compounds count to the most demanding of products because they are formulated from numerous components and additives. At our Burghausen technical center we can help you achieve an ideal result. For example, self-leveling compounds with outstanding mechanical properties and very good flow characteristics for absolutely flat, crater-free surfaces devoid of surface bleeding and sedimentation. We are also happy to test and optimize your formulations using the raw materials that you employ.

Test Methods

- Determination of flow characteristics (EN 12706 and WACKER methods)
- Determination of self-healing properties and surface quality
- Determination of abrasion resistance by way of the BCA (EN 13892-4), rolling-wheel (EN 13892-5) or Böhme (EN 13892-3) test
- Determination of wear resistance to rolling wheel of screed material with floor coverings (EN 13892-7)
- Determination of compressive and flexural strength (EN 13892-2)
- Determination of dimensional change (EN 13872 and WACKER methods)
- Determination of tensile adhesive strength (EN 13892-8)
- Determination of setting behavior (Vicat, TAM-Air)
- Determination of air-pore content (EN 1015-7)

EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)



As one of few facilities in Europe, our Burghausen technical center boasts two EOTA climatic chambers in which we can simulate year-long weathering of walls in an accelerated process.

New energy regulations, varying facade substrates and trends such as the desire for “thinner” insulation materials pose new challenges for the construction industry. EIFS provide an answer. However, the mortars, too, have to be adjusted to the new conditions. At our Burghausen technical center we are able to assist you in this process, and to develop innovative solutions for you. For example, moisture is a good heat conductor, so we have developed a water-repellent adhesive coat that protects the insulation panels from water penetration – thus maintaining their high insulation performance.

Test Methods

- Weathering according to the European Technical Approval Guideline (ETAG 004)

- Determination of consistence of fresh mortar (EN 1015-3)
- Determination of water-absorption coefficients (EN 15148)
- Determination of air content of fresh mortar (EN 1015-7)
- Determination of open time via tensile adhesion strength (EN 1346)
- Determination of tensile adhesion strength – mortars and adhesives for tiles and panels (EN 1348)
- Determination of water-vapor permeability (EN 12572)
- Determination of resistance to impact strength
- Determination of bulk density of fresh mortar (EN 13497)
- Determination of stability on an outdoor weathering test site

PASTY CONSTRUCTION PRODUCTS

WACKER POLYMERS has developed optimized binders and suitable test methods especially for liquid and pasty products. Particular requirements to be met by pasty products include:

Low Flammability

VINNAPAS® terpolymer dispersions have been developed specifically for all EIFS components. They combine excellent workability with good adhesion, cohesion and water repellency, and enhance the system safety by virtue of their low flammability – a requirement of international standards and guidelines.

Environmental Compatibility

VINNAPAS® VAE dispersions generate hardly any VOC (volatile organic compounds) emissions and require no film-forming aids/coalescing agents – nowadays a weighty argument in their favor.

Top Performance Thanks to Silanized S/A Dispersions

VINNAPAS® silanized styrene-acrylate dispersions give primers and pasty tile adhesives unrivalled adhesion and cohesion properties, which are not affected even by long-term exposure of the tile adhesive to water. They are suitable for EN 12004 D2 pasty tile adhesives and high-performance EMICODE EC1-compliant primers.

Test Methods

- Determination of liquid-water absorption (EN 1062-3, EN ISO 15148, EN 1015-18, ETAG 004)
- Determination of water-vapor permeability (EN ISO 12572, EN ISO 7783-2, EN 1015-19, ETAG 004)
- Determination of durability and adhesion-bond strength (EN 1062-7 and WACKER methods)
- Determination of hygrothermal-cycle performance (ETAG 004)
- Assessment of pasty-tile-adhesive performance (EN 12004)
- Outdoor exposure studies on an outdoor weathering rig (evaluation as per ASTM 3719-00 and WACKER methods of assessing chalking, dirt pick-up and algae/fungi growth)
- Flammability tests (Swiss Bunsen burner test)
- Workability check by master applicator
- Storage-stability checks under standard conditions and at elevated temperatures (pH, viscosity)

JOIN US IN MAKING HISTORY!



How do we make a good job of laying dense tiles in outdoor areas? How do we confer enhanced deformability on concrete for conditions of dynamic loading? Together, we can find new toeholds and develop solutions tailored to your specific challenges.

Polymer binders have significantly altered the course of construction-material history – in more ways than one. The future, too, holds great value-adding and innovation potential. We would gladly team up with you to exploit it, with new products and customized solutions.

Our Team for Your Future

To this end, we have set up an innovation team at our Burghausen technical center. This team of application experts deals specifically with new issues, working on an interdisciplinary and cross-divisional basis and in collaboration with universities and external engineering agencies.

A Concrete Example

We are currently working on new applications that fall under the heading “Infrastructure and Concrete,” where properties of fresh and hard concrete can be selectively adjusted with specialty polymer dispersions and dispersible polymer powders. Here too, you can make use of extensive technical facilities at our technical center to try out new product and application ideas.

Let's start with the future today!



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