

**WACKER**

CREATING TOMORROW'S SOLUTIONS

GENIOSIL<sup>®</sup> N

ADHESIVES & SEALANTS | HYBRID COMPOUNDS

FUNCTIONALITY STARTS HERE:  
**α-HYBRID COMPOUNDS**  
FOR ADHESIVES AND SEALANTS

# GENIOSIL® ADHESIVES AND SEALANTS: IDEAL FOR EVERY APPLICATION





**A few examples of GENIOSIL®'s versatility:**

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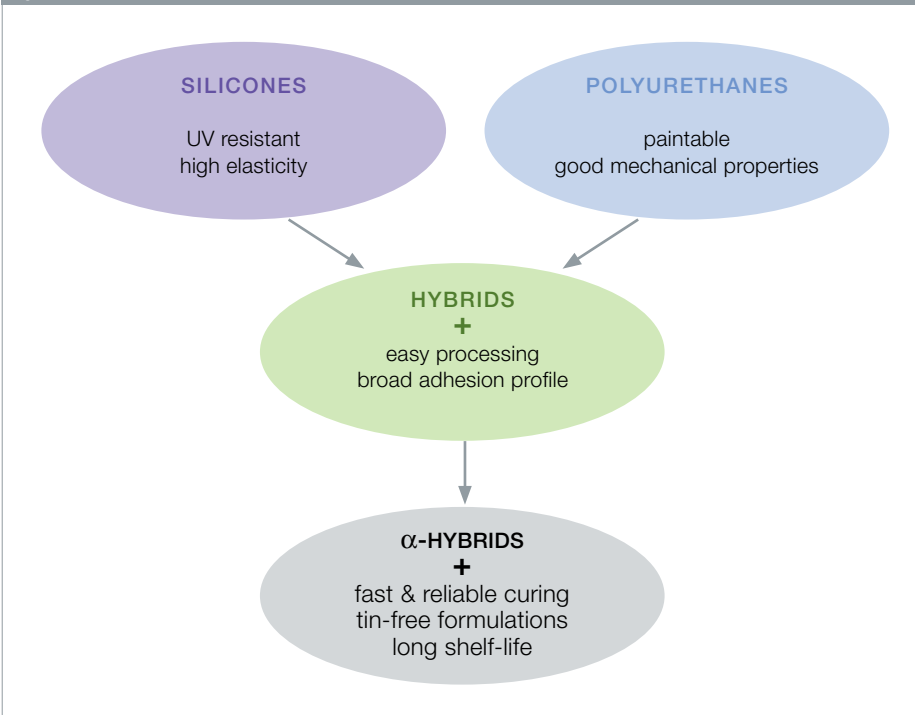
**Go for the optimum!**

WACKER is one of the world's largest construction-solution providers. Whether used in new construction, refurbishment or renovation, WACKER products meet the most exacting demands by offering the best balance between quality and cost-efficiency. Our comprehensive portfolio – based on a unique combination of the two fully developed technology platforms silicones and polymer chemistry – and our strong service will help you find the optimal solution for your specific application. Talk to us!  
[www.wacker.com/construction](http://www.wacker.com/construction)



# INNOVATION STARTS HERE: THE $\alpha$ -TECHNOLOGY

## Hybrids: Benefits at a Glance



**What are hybrids?** Hybrids are silane-crosslinking organic polymers that combine properties typical of both silicones and polyurethanes. They are highly versatile yet easy and safe to use as they are isocyanate- & solvent-free and – in case of the  $\alpha$ -hybrids – don't need tin-catalysts for curing.

Silane-modified polymers have been used since the 1980s as binders for adhesives & sealants. These binders, though innovative at that time, displayed certain disadvantages. Following extensive screening,  $\alpha$ -silane chemistry could address many of the drawbacks. In recognition that this approach proved correct, WACKER was conferred with the “Construction Sealants New Product Innovation Award” in 2011, acknowledging this technology as truly ground-breaking.

### GENIOSIL® $\alpha$ -hybrids: Building on the Performance of Existing Hybrids

With the GENIOSIL®  $\alpha$ -technology WACKER introduced a new group of silane-terminated polyethers. Formulations based on this technology offer a higher performance than traditional systems. They encompass those characteristics attainable with established systems and take the applicator yet a step further by offering greater advantages:

- A broad range of elasticity and strength – from low-modulus sealants to high-strength adhesives
- Fast & complete curing
- Exceptionally long shelf life
- Tack-free surface without dirt pick-up
- Particularly environmentally and user friendly (e.g. tin-free, plasticizer-free, low-VOC)



GENIOSIL® N35 is a neutral, one-part, elastic sealant for all types of joints in indoor and outdoor applications. Once cured, it can be painted without problems. Despite its elasticity, GENIOSIL® N35 is firm enough for filling and bonding.

# GENIOSIL® N35 – THE ALL-PURPOSE SEALANT



## Applications

- Paintable indoor and outdoor connection and expansion joints (facades, ceiling, window and masonry connections)
- Elastic filling of cracks and cavities
- Highly elastic bonding

## Processing Benefits

- One-part
- Easy to process at 5 – 40 °C
- Rapid curing
- Adhesion to many different substrates without primer
- Solvent-free
- Low environmental impact and safe
- Virtually odorless
- Excellent shelf life

## Product Benefits

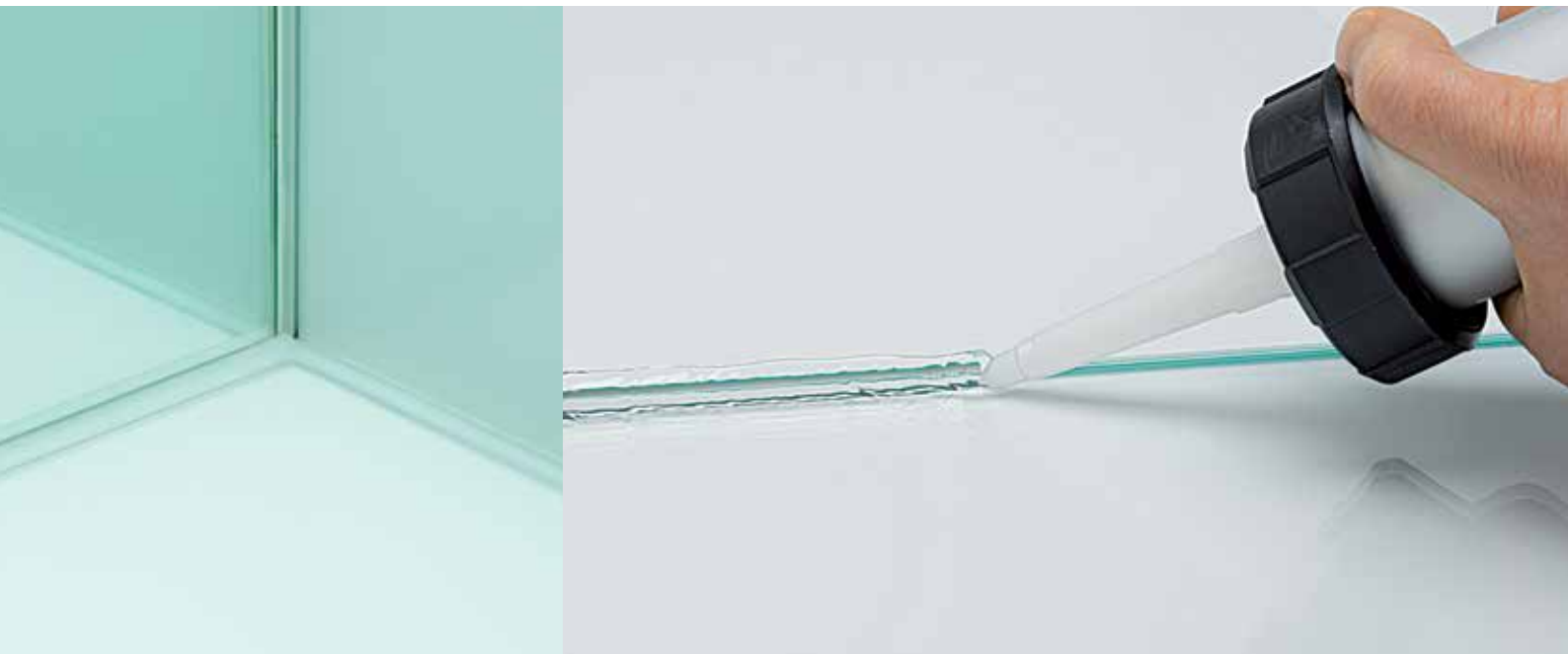
- Tack-free surface
- High movement-capability
- High bonding
- Paintable
- Stable at temperatures from -40 °C to +80 °C
- Non-corrosive
- Weathering-resistant
- Water-resistant



GENIOSIL® N35C is a crystal-clear, neutral, one-part adhesive/sealant for all types of permanently flexible interior bonding and jointing. The product's predominant feature is its high transparency, which is permanent and renders joints and adhesive seams almost invisible.



# GENIOSIL® N35C – THE INVISIBLE ADHESIVE AND SEALANT



## Applications

- Transparent indoor joints and invisible bonding
- Decorative and furniture assembly
- Glass display cases

## Processing Benefits

- One-part
- Easy to process at 5 – 40 °C
- Non-sag, no dripping
- Rapid curing
- Good adhesion to many substrates
- Solvent-free
- Low environmental impact and safe
- Virtually odorless
- Good shelf life

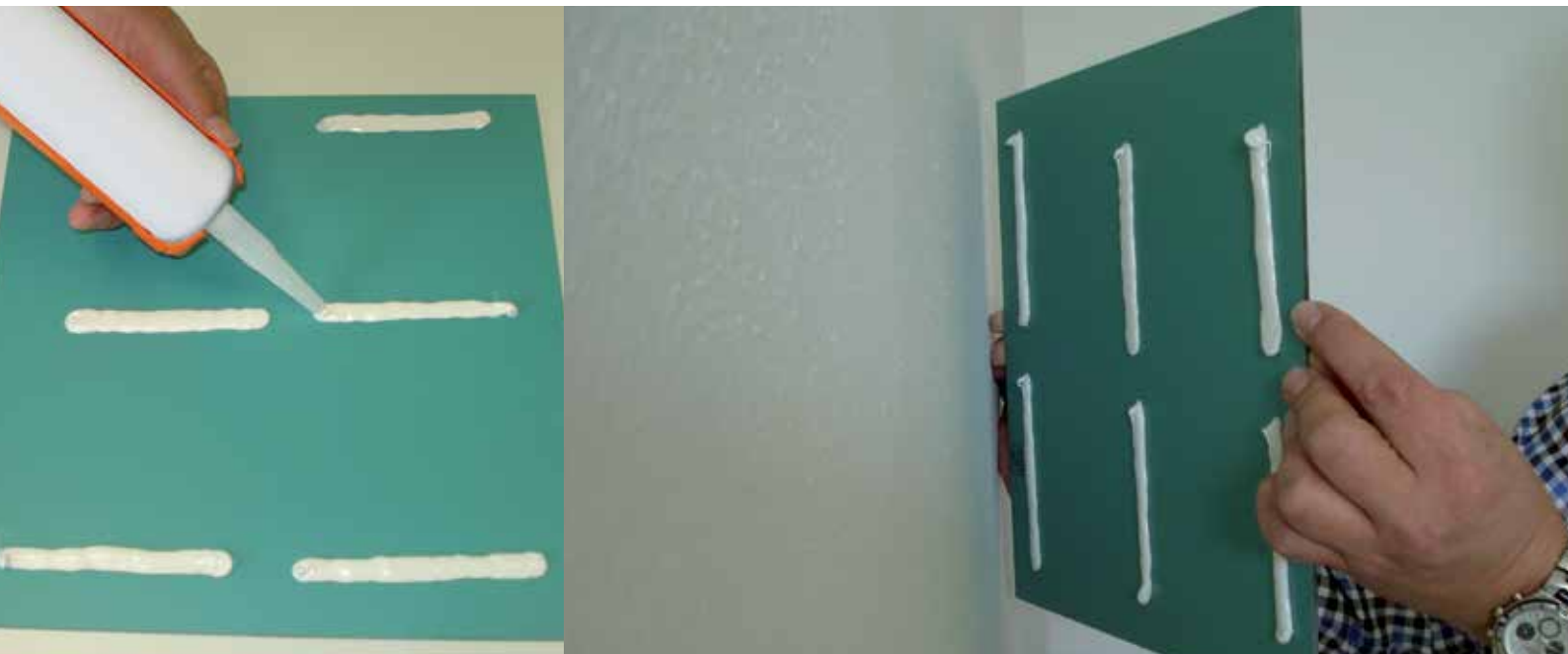
## Product Benefits

- Highly transparent and stable against yellowing
- Tack-free surface
- Permanent elasticity
- Paintable
- Stable at temperatures from -40 °C to +80 °C
- Non-corrosive
- Water-resistant



GENIOSIL® N45 is a neutral, one-part, flexible adhesive with a broad range of construction, industry, household and hobby applications. It's reliable, strong and safe, but still sufficiently flexible to act as a joint sealant if required.

# GENIOSIL® N45/GENIOSIL® N45-HT – THE ALL-PURPOSE ASSEMBLY ADHESIVE



## Applications

- Stress-free bonding
- Seam sealing
- Filling in cracks and cavities

## GENIOSIL® N45-HT

- Bonding of mirrors

## Processing Benefits

- One-part
- Easy to process at 5 – 40 °C
- Non-sag paste
- Rapid curing
- Good adhesion to many different substrates
- Solvent-free
- Low environmental impact and safe (tin-free, phthalate-free)
- Virtually odorless
- Excellent shelf life

## GENIOSIL® N45-HT

- High-initial tack

## Product Benefits

- Ideal balance between strength and elasticity
- Tack-free surface
- Paintable
- Stable at temperatures from -40 °C to +80 °C
- Non-corrosive
- Weathering-resistant
- Water-resistant



GENIOSIL® N70 is a neutral, one-part, elastic adhesive that has exceptionally good adhesion and high strength. With GENIOSIL® N70, many things that used to be affixed with nails and screws can now be bonded. The product is a valuable helper in construction, the household and many recreational activities.

# GENIOSIL® N70/GENIOSIL® N70-HT – THE HIGH-STRENGTH ELASTIC ADHESIVE



## Applications

- All types of stress-free bonding (wood, metal, plastics, tiles and gypsum plasterboards)
- Bonding, replaces mechanical fixation
- Repair and assembly adhesive

## Processing Benefits

- One-part
- Easy to process at 5 – 40 °C
- Rapid curing, develops strength fast
- Excellent adhesion to almost all substrates without primer
- Solvent-free
- Low environmental impact and safe (tin-free and plasticizer-free)
- Virtually odorless
- Excellent shelf life

## GENIOSIL® N70-HT

- High-initial tack

## Product Benefits

- Broad range of applications
- High-strength yet elastic
- Tack-free surface
- Paintable
- Can be sanded
- Stable at temperatures from -40 °C to +80 °C
- No bleeding, no staining
- Non-corrosive
- Weathering-resistant

# TECHNICAL PROPERTIES

## GENIOSIL® N Product Properties

		GENIOSIL® N35	GENIOSIL® N35C	GENIOSIL® N45	GENIOSIL® N45 HT	GENIOSIL® N70	GENIOSIL® N70 HT
Color		White/gray/ black	Transparent	White/gray/ black/brown	White	White/gray/ black/beige/ brown	White
Density ISO 1183-B	[g/cm³]	1.4	1.0	1.5	1.6	1.6	1.6
Skin-formation time 23 °C / 50% RLF	[min]	30	40	40	40	15	10
Hardness Shore A ISO 868		35	35	50	55	80	85
Tensile strength ISO 37-rod1	[N/mm²]	2.2	1.5	1.7	2.0	3.1	4.0
Elongation at break ISO 37-rod1	[%]	600	200	400	350	100	100
Tear strength ISO 34-C	[N/mm]	12	6	9	10	12	15
Modulus at 100% elongation ISO 37-rod1	[N/mm²]	0.7	0.9	1.1	1.3	3.0	–

# EXPERTISE AND SERVICE NETWORK ON FIVE CONTINENTS



WACKER is one of the world's leading and most research-intensive chemical companies, with total sales of €4.91 billion. Products range from silicones, binders and polymer additives for diverse industrial sectors to bio-engineered pharmaceutical actives and hyperpure silicon for semiconductor and solar applications. As a technology leader focusing on sustainability, WACKER promotes products and ideas that offer a high value-added potential to ensure that current and future generations enjoy a better quality of life based on energy efficiency and protection of the climate and environment. Spanning

the globe with five business divisions, operating 25 production sites, WACKER is currently active in over 100 countries. The Group maintains subsidiaries and sales offices in 29 countries across Europe, the Americas and Asia – including a solidly established presence in China. With a workforce of 17,200, WACKER sees itself as a reliable innovation partner that develops trailblazing solutions for, and in collaboration with, its customers. WACKER also helps them boost their own success. Our technical centers employ local specialists who assist customers worldwide in the development of products

tailored to regional demands, supporting them during every stage of their complex production processes, if required. WACKER e-solutions are online services provided via our customer portal and as integrated process solutions. Our customers and business partners thus benefit from comprehensive information and reliable service to enable projects and orders to be handled fast, reliably and highly efficiently. Visit us anywhere, anytime around the world at:

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