Kisling AG
Motorenstrasse 102
CH-8620 Wetzikon
Telefon +41 (0)58 272 01 01
Telefax +41 (0)58 272 01 03
info@kisling.com
www.kisling.com

TECHNICAL DATA SHEET

ergo.® 1665 (ergo® 1663 + ergo® 1664)

ergo.® 1665 is a non-sagging, two-part methacrylate adhesive designed for structural bonding of thermoplastic, metal, and composite assemblies. Combined at a 10:1 ratio, it has a working time of 3 to 6 minutes. 50% of final strength (@23°C) will be achieved already within 15 to 18 minutes. **ergo® 1665** is mainly used as an universal grade for industrial applications where composites are involved. Normally it does not require any surface preparation.

ADVANTAGES

- Good adhesion to a wide range of materials
- Non-dropping paste
- Bridges gaps up to 10 mm
- Excellent resistance against dynamic loads
- Resistant against outside conditions and humidity
- 100% reactive compound

FIELDS OF APPLICATION

Household appliance (white ware), advertising panels, traffic guidance systems, electronic and electrical engineering, vehicle industry, furnishment, windows and doors, bus- , truck- and rail car industry, boat and ship construction.

PRODUCT DATAS

Physical properties – liquid product, at 23°C

	ergo.® 1663 (resin)	ergo.® 1664 (activator)
Viscosity [mPas]	~ 100.000	~ 50.000
Colour	Off-white	blue
Mixture ratio, volume	10	1
Density [g/cm^3]	~ 0,99	~ 1,15
Flash point	10°C	
Gap filling	up to 10 mm	
Working time	3 – 6 minutes	
Fixture time [~10 N/mm^2]	8 – 13 minutes	
Final strength	12 hours	
Processing temperature	+10°C up to + 40°C	

Kisling AG
Motorenstrasse 102
CH-8620 Wetzikon
Telefon +41 (0)58 272 01 01
Telefax +41 (0)58 272 01 03
info@kisling.com
www.kisling.com

Recommended for
ABS, PVC, PS, FRP, PMMA, polyesters, polyurethanes, composites, steel, aluminum,…..

Physical properties - cured product

Tensile strength DIN 53504
after 24 hrs at 23°C > 15 N/mm²
Elongation at break, DIN 53504
after 24 hrs at 23°C ~ 75%

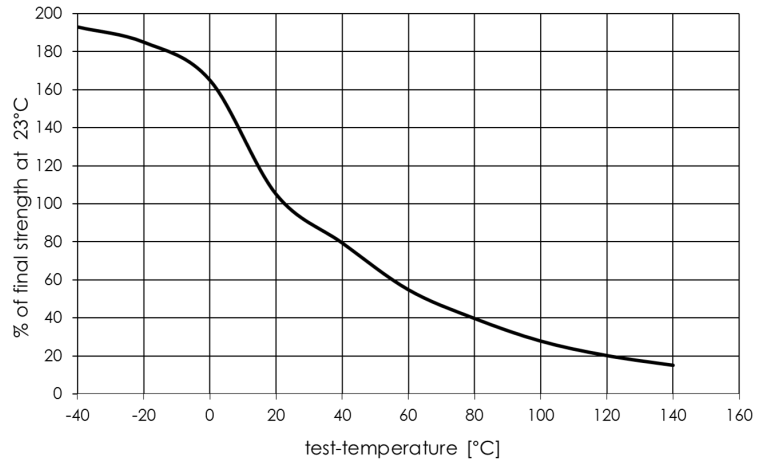
Tensile shear strength DIN EN 1465 after 24 hrs at 23°C

on steel	> 15 N/mm²
steel/ glass	> 10 N/mm² (x)
aluminium	> 19 N/mm²
GFR plastic	> 17 N/mm²
ABS	> 5 N/mm² (x)
PC	> 6 N/mm² (x)
PVC	> 7 N/mm² (x)
PMMA	> 6 N/mm² (x)

(x) = test-stripe failed

Thermal range - 55°C up to + 120°C

Tensile shear strength acc. to EN 1465
after 24 hours @ 23° C and 24 hours @ mentioned test temperature (steel, sand-blasted)



Chemical resistance

Excellent to hydrocarbons
acids and bases (pH 3 – 10)
salt solutions

Susceptible to polar solvents
strong acids and basis

Kisling AG
Motorenstrasse 102
CH-8620 Wetzikon
Telefon +41 (0)58 272 01 01
Telefax +41 (0)58 272 01 03
info@kisling.com
www.kisling.com

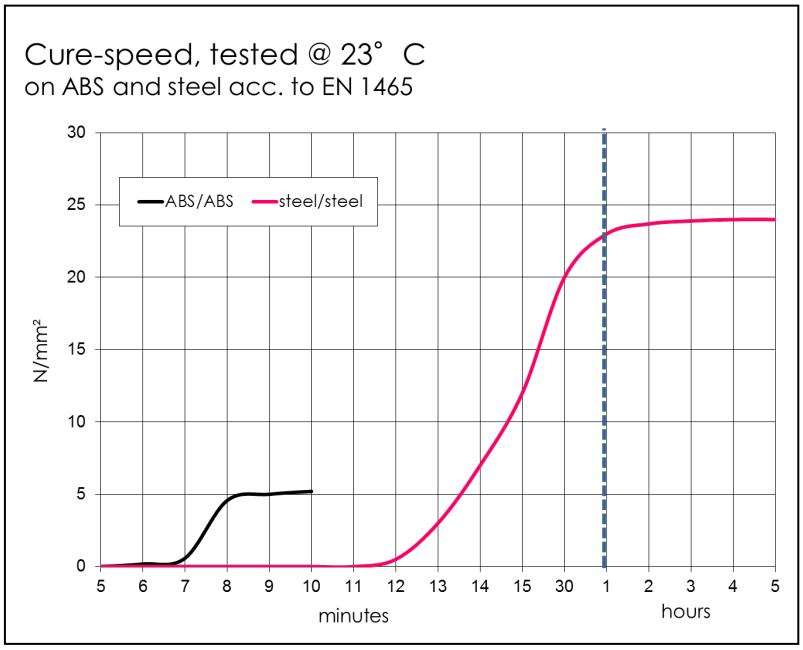
Working procedure

Mixture

ergo.® 1665 is available in common double cartridges.
Usage of static mixture tubes and the related dosing pistol avoids mixing mistakes.
The product will be mixed perfectly and can be applied very easily.
Attention: As soon as curing starts inside the mixing tube, it must be replaced by a new one.

Usage

The glue is applied via the static mixture tube either as a thin rope or as uniform film on one part only. The parts must be joined within the pot life range and fixed at least until functional time is reached.



ABS: test stripes break at > 5 N/mm² (> 1600 N)

Too early movements can disturb the curing process and decrease the final bond-strength

Influence of processing temperature

Between +12°C and +25°C the product cures normal. Below +12°C the curing process needs much more time and temperature above +25°C will accelerate the curing process. Changing temperature influences also the viscosity of the single components

Handling and storage

Because of the high reactivity of the product and the exothermic curing process, never mix bigger amount of the components. The heat might evaporate parts of the formulation and cause strong smell.
Do not waste exceeded material in plastic containers, because of the danger of melting.

Kisling AG
Motorenstrasse 102
CH-8620 Wetzikon
Telefon +41 (0)58 272 01 01
Telefax +41 (0)58 272 01 03
info@kisling.com
www.kisling.com

Storage conditions
If stored in a dark and cool (20°C) place ergo® 1665 keeps its properties stable for 1 year after date of production. The date of expiry is mentioned on the label. Temperature above 20°C will decrease the storage stability and low temperature (+7°C up to +12°C) will increase it. Do not freeze the product.

Cleaning
The liquid product may be removed with a blotting (absorbent) paper and a solvent like ethanol or acetone.
Cured product must be removed mechanically first and in a second step wiped with acetone.
Shedded glue should be mixed with an inorganic absorbent and wasted as flammable good.

Precautions
For your own safety, please refer to the information of the concerned MSDS