

Palatal® A 410-01

Iso/NPG resin used in industrial applications and for making Gelcoats.

Components based on Palatal® A 410-01 feature good mechanical strength and resistance to chemicals and heat. The resin is also used as primer on PVC.

The Palatal® A 410-01 resin is also broadly used as base resin for making gelcoats.

Benefits

- Continued operation of process equipment
- Low maintenance and low cost of ownership
- Used as adhesion promoter between PVC and laminate
- Enhanced weatherability in gelcoat formulations
- Performance track record

Major Applications

Palatal® A 410-01 is intended for glass-fiber reinforced moldings that exhibit excellent mechanical properties, high resistance to chemicals and good electrical properties, e.g. tanks and containers in industrial plants, corrosion protection, boats, and electrical industry.

Furthermore, Palatal® A 410-01 is used as an adhesion promoter between PVC and composites in the construction of composite tanks with PVC liners.

Certifications and Approvals

Cured unreinforced Palatal® A 410-01 conforms to type 1140 according to DIN 16946/2 and is classified in group 3 according to DIN 18820/1.

This resin is certified by Lloyd's Register as gelcoat base resin and laminating resin for use in Marine applications.

Product Specifications

Property	Value	Unit	TM
Appearance	Slightly hazy		TM 2265
Color Lico APHA	0 - 5	APHA	TM 2017
Solids content	54 - 58	%	TM 2033
Viscosity 23 °C, 100 s ⁻¹	1100 - 1300	mPa.s	TM 2013
Viscosity after 120 min	25000 - 625000	mPa.s	TM 2914A
Gel time 25 until 35 °C	7 - 13	min	TM 2625
Peak time	13 - 20	min	TM 2625
Peak temperature	160 - 190	°C	TM 2625
Water content	0 - 0,06	ppm	TM 2350

Viscosity measurement: S 2/100 s⁻¹/23°C. Reactivity determined with 1.0 g Acetylacetone peroxide (AAP) and 0.5 g Cobalt Polymer accelerator (1%) added to 100 g of resin.

Liquid

Property	Value	Unit	TM
Density 23 °C	1060	kg/m ³	TM 2160
Flash point	33	°C	TM 2800
Stability (no initiator, dark, 25°C)	6	month	

Solid Unfilled

Property	Value	Unit	TM
Density 20 °C	1145	kg/m ³	DIN 53479
Tensile strength	85	MPa	ISO 527-2
Tensile modulus	3.6	GPa	ISO 527-2
Elongation at break	4.4	%	ISO 527-2
Flexural strength	150	MPa	ISO 178
Flexural E-Modulus	3.95	GPa	ISO 178
Outer fiber strain	5.6	%	ISO 178
HDT	107	°C	ASTM D648
Impact strength	20	kJ/m ²	ISO 179
Tg	125	°C	DIN 53445

Cured with 1 ml Acetylacetone peroxide (AAP) and 0.1 ml Cobalt Polymer accelerator (1%) added to 100 g of resin. Cured for 24 h at room temperature and post cured 24 h at 100°C.

Application Guidelines

Palatal® A 410-01 does normally not exhibit tack-free cure. To ensure tack-free cure of surfaces exposed to air, suitable additives (e.g. a paraffin solution) should be added.

The use of methylethylketone peroxide (MEKP) compared to cyclohexanone peroxide (CHP) leads to shorter gel times and slower curing when Cobalt accelerated curing is carried out at room temperature. The use of MEKP thus is not recommended for the production of thin laminate layers and gel coats, for which CHP should be used. If low curing temperatures and extended gel times are required, the use of BPO together with amine accelerators is recommended.

The amount of curing agents has to be increased for the production of thin coatings and laminate layers. The final state of cure may be optimized by post curing at elevated temperatures (e.g. 80 °C) for several hours.

The resin should be conditioned at a well-defined, application dependent temperature (usually 15°C minimum for a MEKP/Cobalt cure).

Storage Guidelines

The resin should be stored indoors in a dry place at tempera tight and undamaged packaging.

The properties of the resin may change slightly during storag

Material Safety

A Safety Data Sheet (SDS) of this product is available on request.

Test Methods

Test methods (TM) referred to in the table(s) are available on request.

ISO 9001:2015 Certified

The Quality Management Systems at every AOC manufacturing facility have been certified as meeting ISO 9001:2015 standards. This certification recognizes that each AOC facility has an internationally accepted model in place for managing and assuring quality. We follow the practices set forth in this model to add value to the resins we make for our customers.

AOC. Trusted Solutions

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Contact us for more information

We will help you to choose the right resin solution.

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