
NAD POLYMER®
Che-Mystery

“KOOLANCEL” company was established in 2008 as the first manufacturer of cellulose pads in the Middle East. Soon after, “ENERGY” Company started its cooperation with KOOLANCEL Company as a business partner, and this company joined as a member of ENERGY Holding. In 2017, KOOLANCEL Company has developed the brand “NADPOLYMER” to manufacture unsaturated polyester, phenolic and acrylic resins per the customers’ needs. Nadpolymer approach has always been to manufacture high-quality products in line with the customer’s needs and provide a superior value proposition.

The competitive edge of NADPOLYMER rests upon its dynamic research and development unit, poised to design and manufacture an array of unsaturated polyester, phenolic and acryli resins in response to customer requisites. Additionally, a seasoned marketing and sales team adeptly promotes products in both domestic and international markets.

NADPOLYMER products offer a constellation of advantages, including:

1- Consistent Quality: A hallmark of stability.

2- Tailored Solutions: Customized products intricately shaped to fulfill individual customer needs.

3- Timely Deliveries: Punctuality in meeting commitments.

Unsaturated Polyester Resins

Unsaturated polyester resins are among the most significant and industrially versatile thermosetting materials and are used in a wide range of applications, including composite products. These materials act as a matrix that retains the fibers and transmits external loads to them. NADPOLYMER products are used to manufacture the following parts and products:

1- GRP Pipes and Fittings
2- GRP Storage Tanks
3- Pultrusion Process
4- Flotation Applications
5- Artificial Stone
6- Kitchen Sinks and Washbasins
7- Bathtubs and Shower Trays
8- Decorative Wall Panels (Marble Sheet)
9- Putty and Mastic Compounds
10-Decorative industry (furniture, sculptures and decorative parts)
11- Prefabricated Swimming Pools
12- Composite Sheets
13- Polymer Concrete Pipes
14- Prefabricated cooling towers
15- Sports and Recreational Equipment
16- Automotive Parts
17- SMC/BMC Molding Processes
18- Gelcoat and Topcoat Applications
19- Button Manufacturing


نادپلیمر
NAD-1204

Unsaturated Polyester

→ GRP Pipes and Fittings

This product line includes six formulations suitable for manufacturing various types of pipes in different dimensions, using both continuous and discontinuous processes. These products constitute a significant share of NADPOLYMER's export portfolio.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1102	Ortho	10-20	<25	270-300	58-62	70±5	125±5	45-50	70-75
NAD-1103	Ortho	10-20	18-25	360-420	60-65	65±5	110±10	40-45	75±5
NAD-1104	Ortho	10-20	20-30	350-450	60-65	65±5	110±10	40-45	60±3
NAD-1149	Ortho	10-20	18-25	300-380	60-65	65±5	110±10	40-45	75±5
NAD-1201LV	Iso	10-20	15-22	360-420	60-65	75±5	120±5	40-45	85±5
NAD-1203	Iso	10-20	15-22	300-330	60-65	75±5	115±5	40-45	85±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ GRP Storage Tanks

NADPOLYMER's GRP tank resins have a high HDT and excellent hardness, making them suitable for cold-water storage.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1102	Ortho	10-20	<25	270-300	58-62	70±5	125±5	45-50	70-75
NAD-1103	Ortho	10-20	18-25	360-420	60-65	65±5	110±10	40-45	75±5
NAD-1104	Ortho	10-20	20-30	350-450	60-65	65±5	110±10	40-45	60±3
NAD-1149	Ortho	10-20	18-25	300-380	60-65	65±5	110±10	40-45	75±5
NAD-1201LV	Iso	10-20	15-22	360-420	60-65	75±5	120±5	40-45	85±5
NAD-1202	Iso	10-20	15-25	350-450	60-65	75±5	125±5	40-45	75±5
NAD-1203	Iso	10-20	15-22	300-330	60-65	75±5	115±5	40-45	85±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Pultrusion Process

NADPOLYMER resins with properties suitable for use in the pultrusion process.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength (Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1102	Ortho	10-20	<25	270-300	58-62	70±5	125±5	45-50	70-75
NAD-1103	Ortho	10-20	18-25	360-420	60-65	65±5	110±10	40-45	75±5
NAD-1201LV	Iso	10-20	15-22	360-420	60-65	75±5	120±5	40-45	85±5
NAD-1202	Iso	10-20	15-25	350-450	60-65	75±5	125±5	40-45	75±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Flotation Applications

The reasonable price leads to the production of high-quality, reliable pipes. They offer high HDT, tensile strength, and excellent flexibility.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1102	Ortho	10-20	<25	270-300	58-62	70±5	125±5	45-50	70-75
NAD-1103	Ortho	10-20	18-25	360-420	60-65	65±5	110±10	40-45	75±5
NAD-1201LV	Iso	10-20	15-22	360-420	60-65	75±5	120±5	40-45	85±5
NAD-1202	Iso	10-20	15-25	350-450	60-65	75±5	125±5	40-45	75±5
NAD-1203	Iso	10-20	15-22	300-330	60-65	75±5	115±5	40-45	85±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Artificial Stone

NADPOLYMER resins with properties suitable for the production of various types of artificial stones:
Acrylic-modified NAD-1111 resin, suitable for the production of solid surface stones.
NAD-1120 resin has high hardness, making it suitable for the production of various types of artificial stones.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1111	Ortho	10-20	20-30	350-450	60-65	70±5	120±10	40-45	58-62
NAD-1111HV	Ortho	8-10	20-30	600-700	65-70	70±5	120±10	40-45	60±5
NAD-1111UHV	Ortho	10-20	20-30	800-900	65-70	70±5	120±10	40-45	60±5
NAD-1120	Ortho	10-20	20-30	350-463	60-65	65±5	110±10	40-45	55±5
NAD-1201	Iso	8-10	15-22	600-700	65-70	70±5	115±5	40-45	70±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Kitchen Sinks and Washbasins

NADPOLYMER resins with properties suitable for the production of various types of sinks and washbasins:

NAD-1111 resin modified with acrylic monomers, suitable for the production of various types of sinks and washbasins.

NAD-1120 high hardness, making it suitable for the production of various types of sinks and washbasins.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1111	Ortho	10-20	20-30	350-450	60-65	70±5	120±10	40-45	58-62
NAD-1111HV	Ortho	8-10	20-30	600-700	65-70	70±5	120±10	40-45	60±5
NAD-1111UHV	Ortho	10-20	20-30	800-900	65-70	70±5	120±10	40-45	60±5
NAD-1120	Ortho	10-20	20-30	350-463	60-65	65±5	110±10	40-45	55±5
NAD-1201	Iso	8-10	15-22	600-700	65-70	70±5	115±5	40-45	70±5
NAD-1301	Terephthalic	10-15	18-22	400-450	63-67	65±5	110±5	35-40	55±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com


NAD POLYMER®
Che-Mystery

Unsaturated Polyester

→ Bathtubs and Shower Trays

NADPOLYMER resins with properties suitable for the production of bathtubs and shower trays:

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1104	Ortho	10-20	20-30	350-450	60-65	65±5	110±10	40-45	60±3
NAD-1111HV	Ortho	8-10	20-30	600-700	65-70	70±5	120±10	40-45	60±5
NAD-1112	Ortho	10-20	<40	350-550	61-67	55±5	105±5	39-41	50±5
NAD-1201	Iso	8-10	15-22	600-700	65-70	70±5	115±5	40-45	70±5
NAD-1301	Terephthalic	10-15	18-22	400-450	63-67	65±5	110±5	35-40	55±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Decorative Wall Panels (Marble Sheet)

NAD-1121 resin has very high flexibility and is suitable for the production of flexible sheets and marblesheet:

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (٪)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1121	Ortho	5-10	15-25	280-300	64-68	20±10	N/A	<20	30-35

→ Putty and Mastic Compounds

Nadpolymer resins with properties suitable for the production of concrete and mastics:

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (٪)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1105	Ortho	4-6	18-25	660-710	64-68	50±5	100±5	40-45	50±5
NAD-1111HV	Ortho	8-10	20-30	600-700	65-70	70±5	120±10	40-45	60±5
NAD-1111UHV	Ortho	10-20	20-30	800-900	65-70	70±5	120±10	40-45	60±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Decorative industry (furniture، sculptures، and decorative parts)

NAD-1112 resin is used for the production of large decorative pieces, including large statues, columns, and pedestals.

Additionally, NAD-1114 resin is suitable for the production of small statues, figurines, and decorative elements.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1105	Ortho	4-6	18-25	660-710	64-68	50±5	100±10	40-45	50±5
NAD-1111	Ortho	10-20	20-30	350-450	60-65	70±5	120±10	40-45	58-62
NAD-1112	Ortho	10-20	<40	350-550	61-67	55±5	105±5	39-41	50±5
NAD-1114	Ortho	10-20	20-30	350-550	62-67	45±5	90±10	39-41	50±5
NAD-1120	Ortho	10-20	20-30	350-463	60-65	65±5	110±10	40-45	55±5
NAD-1301	Terephthalic	10-15	18-22	400-450	63-67	65±5	110±5	35-40	55±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com


NAD POLYMER®
Che-Mystery

Unsaturated Polyester

→ Prefabricated Swimming Pools

NADPOLYMER resins with properties suitable for the production of prefabricated tanks:

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1102	Ortho	10-20	<25	270-300	58-62	70±5	125±5	45-50	70-75
NAD-1103	Ortho	10-20	18-25	360-420	60-65	65±5	110±10	40-45	75±5
NAD-1104	Ortho	10-20	20-30	350-450	60-65	65±5	110±10	40-45	60±3
NAD-1120	Ortho	10-20	20-30	350-463	60-65	65±5	110±10	40-45	55±5
NAD-1201LV	Iso	10-20	15-22	360-420	60-65	75±5	120±5	40-45	85±5
NAD-1202	Iso	10-20	15-25	350-450	60-65	75±5	125±5	40-45	75±5
NAD-1203	Iso	10-20	15-22	300-330	60-65	75±5	115±5	40-45	85±5
NAD-1301	Terephthalic	10-15	18-22	400-450	63-67	65±5	110±5	35-40	55±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Composite Sheets

NAD-1119 and NAD-1121 resins offer very high flexibility and are ideal options for the production of flexible sheets and fiberglass.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1105	Ortho	4-6	18-25	660-710	64-68	50±5	100±10	40-45	50±5
NAD-1114	Ortho	10-20	20-30	350-550	62-67	45±5	90±10	39-41	50±5
NAD-1119	Ortho	5-10	15-25	150-350	62-67	30±5	N/A	N/A	40±5
NAD-1121	Ortho	5-10	15-25	280-300	64-68	20±10	N/A	<20	30-35
NAD-1301	Terephthalic	10-15	18-22	400-450	63-67	65±5	110±5	35-40	55±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

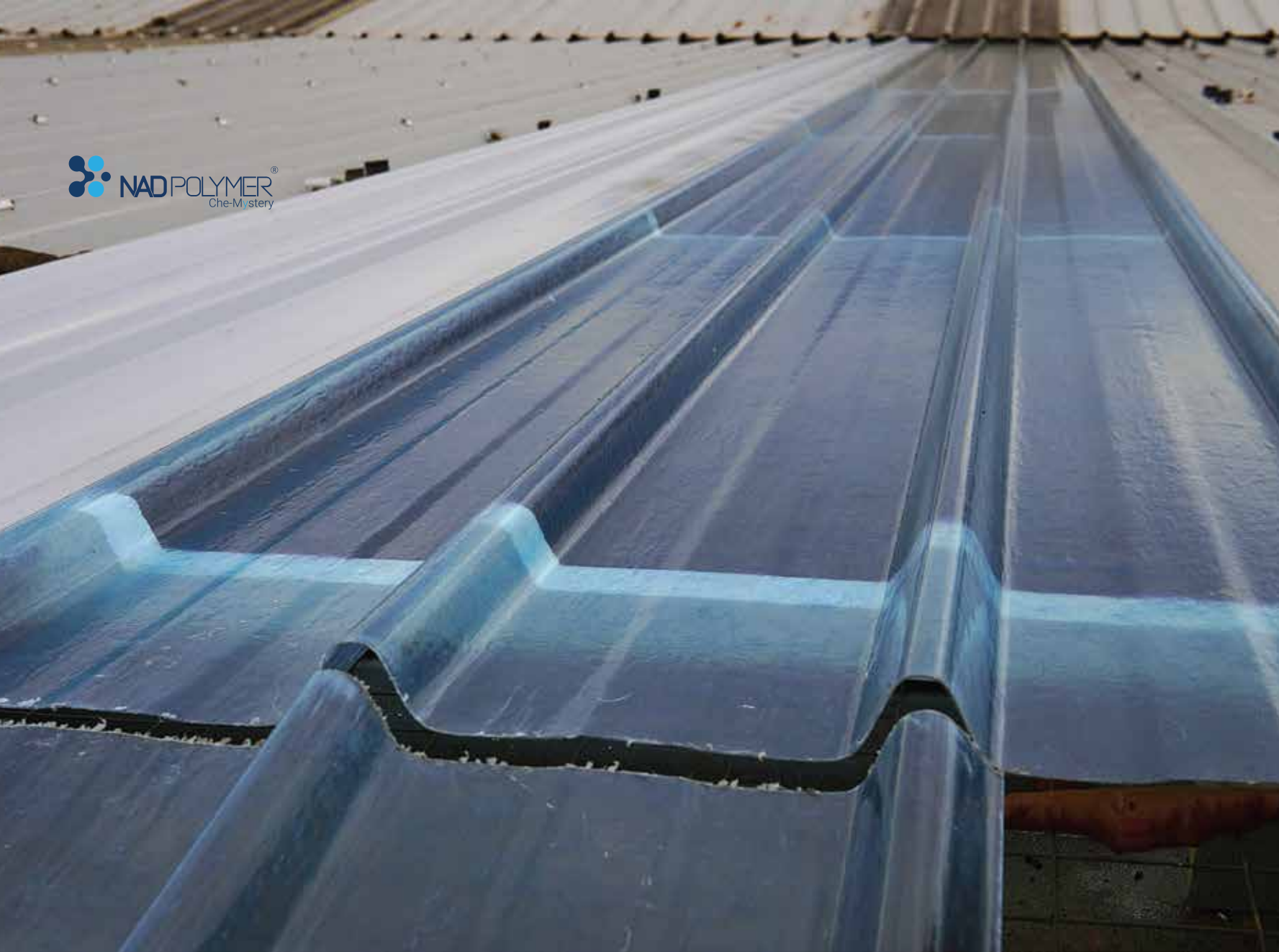
→ Polymer Concrete Pipes

NAD-1104 resin, due to its excellent compatibility with concrete formulations and its outstanding processability, is a suitable option for manufacturers of polymer concrete pipes. Its highly competitive price has also made this resin a popular choice among customers.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1102	Ortho	10-20	<25	270-300	58-62	70±5	125±5	45-50	70-75
NAD-1103	Ortho	10-20	18-25	360-420	60-65	65±5	110±10	40-45	75±5
NAD-1104	Ortho	10-20	20-30	350-450	60-65	65±5	110±10	40-45	60±3
NAD-1201LV	Iso	10-20	15-22	360-420	60-65	75±5	120±5	40-45	85±5
NAD-1202	Iso	10-20	15-25	350-450	60-65	75±5	125±5	40-45	75±5
NAD-1203	Iso	10-20	15-22	300-330	60-65	75±5	115±5	40-45	85±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com


NAD POLYMER®
Che-Mystery

Unsaturated Polyester

→ Prefabricated cooling towers

NADPOLYMER resins with properties suitable for the production of prefabricated cooling towers (Cooling Tower):

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (٪)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1102	Ortho	10-20	<25	270-300	58-62	70±5	125±5	45-50	70-75
NAD-1103	Ortho	10-20	18-25	360-420	60-65	65±5	110±10	40-45	75±5
NAD-1104	Ortho	10-20	20-30	350-450	60-65	65±5	110±10	40-45	60±3
NAD-1112	Ortho	10-20	<40	350-550	61-67	55±5	105±10	39-41	50±5
NAD-1201LV	Iso	10-20	15-22	360-420	60-65	75±5	120±5	40-45	85±5
NAD-1202	Iso	10-20	15-25	350-450	60-65	75±5	125±5	40-45	75±5
NAD-1203	Iso	10-20	15-22	300-330	60-65	75±5	115±5	40-45	85±5
NAD-1301	Terephthalic	10-15	18-22	400-450	63-67	65±5	110±5	35-40	55±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Sports and Recreational Equipment

The products in this group are suitable for the production of playground equipment and water park installations.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1104	Ortho	10-20	20-30	350-450	60-65	65±5	110±10	40-45	60±3
NAD-1112	Ortho	10-20	<40	350-550	61-67	55±5	105±5	39-41	50±5
NAD-1114	Ortho	10-20	20-30	350-550	62-67	45±5	90±10	39-41	50±5
NAD-1120	Ortho	10-20	20-30	350-463	60-65	65±5	110±10	40-45	55±5
NAD-1201LV	Iso	10-20	15-22	360-420	60-65	75±5	120±5	40-45	85±5
NAD-1301	Terephthalic	10-15	18-22	400-450	63-67	65±5	110±5	35-40	55±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Automotive Parts

NADPOLYMER resins with properties suitable for the production of automotive parts:

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1104	Ortho	10-20	20-30	350-450	60-65	65±5	110±10	40-45	60±3
NAD-1112	Ortho	10-20	<40	350-550	61-67	55±5	105±5	39-41	50±5
NAD-1120	Ortho	10-20	20-30	350-463	60-65	65±5	110±10	40-45	55±5
NAD-1201LV	Iso	10-20	15-22	360-420	60-65	75±5	120±5	40-45	85±5
NAD-1301	Terephthalic	10-15	18-22	400-450	63-67	65±5	110±5	35-40	55±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ SMC/BMC Molding Processes

NAD-1118 resin, with its desirable mechanical properties, is suitable for manufacturing automotive parts such as fan trays and headlight housings.

NAD-1102 resin is suitable for producing various automotive components, including SMC parts and cabin parts for light and heavy vehicles manufactured through hand lay-up processes.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength (Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1102	Ortho	10-20	<25	270-300	58-62	70±5	125±5	45-50	70-75
NAD-1104	Ortho	10-20	20-30	350-450	60-65	65±5	110±10	40-45	60±3
NAD-1118	Ortho	10-20	20-30	900-1200	62-68	60±5	80±10	48-52	95±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Gelcoat and Topcoat Applications

NAD-1204 is an iso-neopentyl glycol (NPG) resin specially designed for the production of gel coats and final coatings.

Gel coat is an initial surface layer applied as a primary coating in the manufacturing of composite parts. This coating provides a smooth, high-quality surface and offers appropriate resistance against environmental conditions, chemical agents, moisture, and degradation caused by sunlight. Gel coat also plays an important role in enhancing the durability and service life of components and preventing environmental damage.

Final coatings, or top coats, applied as the last protective layer, not only increase the strength and resistance of the part but also give it a glossy and attractive appearance. NAD-1204 resin, with its excellent resistance to UV, corrosion, and abrasion, is an ideal option for producing these types of coatings in various industries, including automotive, marine, and construction.

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1201	Iso	8-10	15-22	600-700	65-70	70±5	115±5	45-50	70±5
NAD-1204	Iso	10-20	15-25	670-730	65-70	70±5	125±5	40-45	65±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Unsaturated Polyester

→ Button Manufacturing

NADPOLYMER resins with properties suitable for use in the foundry industry:

Products Model	Resin Type	Gel Time (min)	Acid Value (mgKOH/g)	Viscosity (cp)	Solid Content (%)	Tensile Strength)Mpa)	Flexural Strength (MPa)	Hardness (Barcol)	HDT (°C)
NAD-1105	Ortho	4-6	18-25	660-710	64-68	50±5	100±10	40-45	50±5
NAD-1119	Ortho	5-10	15-25	150-350	62-67	30±5	N/A	N/A	40±5
NAD-1121	Ortho	5-10	15-25	280-300	64-68	20±10	N/A	<20	30-35
NAD-1301	Terephthalic	10-15	18-22	400-450	63-67	65±5	110±5	35-40	55±5

- The gel time, viscosity, and thixotropic properties of the products can be adjusted according to customer requirements.
- Achieving curing involves 0.1 phr of cobalt 10% and 1.5 phr of MEKP catalyst.
- The additional curing time for mechanical tests is 3 hours at 80°C.
- The HDT test is performed in about 5 hours at 105°C.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com


نادپلیمر
NADPOLYMER
نادپلیمر
NADPOLYMER
نادپلیمر

Water-Based Acrylic Resins

Today, due to environmental conditions and requirements, the use of water-based resins is rapidly increasing.

Water-based acrylic coatings are classified, based on the monomers used, into three groups: pure acrylic homopolymers, acrylic–styrene copolymers, and vinyl acetate emulsions.

Products Model	Resin Type	Application	PH	Viscosity (CP)	Solid (٪) Content	TG (C°)
KC-302	Styrene Acrylic	for textile printing industries	6±1	100-250	31±1	0
KC-303	Styrene Acrylic	cellulose pad adhesive	6±1	13000-18000	40±1	<3
KC-305	Pure Acrylic	Pressure- sensitive adhesive	4.5±0.5	1000-2000	57±1	<-40
KC-403	Styrene Acrylic	Outdoor and indoor Paints	8.5 – 7	25000-40000	50±1	10-12
KC-503	Styrene Acrylic	concrete adhesive and sealant	6±1	25000-40000	50±1	-19

KC-303 acrylic resin is used as an adhesive or final coating for wood and paper and it has high water resistance, desired flexibility, suitable penetration, strong adhesion, and elastic properties. It is applicable in the production of various cellulose pads in refrigeration systems, gas turbine coolers, greenhouse pads, poultry pads, and other similar uses.

KC-305 acrylic resin is used for the production of wide tape adhesives and carton adhesives.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

Phenolic Resins

Phenolic resins are classified into two types, resole and novolac, based on the molar ratio of formaldehyde to phenol and whether the production environment is acidic or alkaline. Resoles are thermosetting resins that crosslink and form a network structure when exposed to heat or acidic/alkaline catalysts.

Products Model	Resin Type	Application	PH	Viscosity (CP)	Solid Content (%)	Free Formaldehyde	Specific Gravity
KC-201	Resol	cellulose pad coating and brake pad production	10-11	20-30	49±1	<0.5	1.15-1.18
KC-204	Resol	Rock wool and glass wool Binder	9.5 – 9.0	10-14	40±1	N/A	1.16±0.01
KC-205	Resol	HPL Sheets	8.8-9.3	14-17	54-56	<1.5	1.15-1.18
KC-207	Resol	Abrasives	6.5 - 7.5	600-800CP	70-75	N/A	1.2±0.05
KC-215	Resol	Foam and Sponge	6-7	3500-4500CP	78-82	N/A	1.2±0.05

- All NADPOLYMER resol products are water-based.
- Viscosity has been measured with a DIN4 cup at 25°C.
- NADPOLYMER resols are used for producing cellulose pads and fibers, binders for industrial insulation materials such as glass wool and rock wool, various types of HPL sheets, and different abrasives. These resins are supplied as water-soluble solutions.

To obtain the complete datasheet of the resins, please visit the website Nadpolymer.com

NAD POLYMER®
Che-Mystery

nadpolymer www.nadpolymer.com info@nadpolymer.com +9826-34055000

First Golrizan Alley ,2nd Goldis, Western Qazali Blvd., Eshtehard Industrial Town, Eshtehard
Alborz Province, IRAN

VER-02 En