NGC
Next Generation Chemical

CATALOGUE · UK AND EUROPE

NGC PU Systems

Two-component polyurethane systems: NGC Rigid, NGC Flex, NGC Skin and NGC Seal, with NGC Sole and NGC Cast on request. 77 named grades, with typical data to compare them.

NGC Rigid | NGC Flex | NGC Skin | NGC Seal | NGC Sole | NGC Cast



ABOUT THIS CATALOGUE

PU systems, sorted by what you make

Next Generation Chemical Ltd (NGC) is a UK company based in Croydon, London. We supply polyols and polyurethane systems made by our manufacturing partner to manufacturers in the UK and Europe. You get one named person to talk to, the TDS and SDS for each grade, and lead times in writing.

Two parts
Each system is a formulated polyol blend (component A) and an isocyanate (component B, usually polymeric MDI). The tables give the polyol side and the mix ratio.

OH value (mg KOH/g)
Hydroxyl value of the polyol blend. Higher values usually mean a harder foam and more isocyanate.

Viscosity (mPa·s at 25 °C)
How thick the polyol blend is. 1 mPa·s = 1 cP.

FRD and MD (kg/m³)
Free-rise density (foam left to rise freely) and moulded density (foam packed in a mould or panel).

Mix ratio (parts by weight)
"100/135–145" means 135 to 145 parts isocyanate per 100 parts polyol. Machine settings are agreed on trial.

PUR and PIR
PIR systems run at a higher isocyanate ratio, usually for better fire behaviour. Ask for each grade's index on its TDS.

How to read the tables

- **Typical values, not a specification.** The agreed specification is the TDS for your order. Always trial before use.
- "Grade data on request" means the grade is in our range but we do not print its values yet. Ask for the TDS.
- A dash (—) means we do not hold that value yet. It is on the TDS or on request.
- Every grade: **TDS on request**. SDS for GB or EU on request.

Find your system

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NGC RIGID · 01

Insulated sandwich panels and AHU panels

PUR and PIR systems for discontinuous (press) and continuous (double-belt) panel lines, and for air-handling-unit panels. 15 grades.



Illustrative image

NGC name	Use	Type	OH value mg KOH/g	Viscosity mPa·s, 25 °C	FRD kg/m³	MD kg/m³	Mix ratio polyol/iso, pbw	TDS
NGC Rigid 32622	Discontinuous panel	PUR	300–350	250–350	24–26	38–40	100/120–125	On request
NGC Rigid 32124	Discontinuous panel	PIR	300–350	250–350	24–26	40–42	100/135–145	On request
NGC Rigid 32320	Discontinuous panel	PUR	300–350	250–325	24–26	38–40	100/120–125	On request
NGC Rigid 32360	Discontinuous panel	PIR	300–350	250–275	24–26	40–42	100/135–145	On request
NGC Rigid 38025	Continuous panel	PUR	380–420	2,000–2,500	34–36	38–40	100/130–135	On request
NGC Rigid 38026	Continuous panel	PIR	380–420	2,000–2,500	36–38	40–42	100/140–145	On request
NGC Rigid 32226	AHU panel	PUR	300–350	250–350	22–26	38–40	100/120–125	On request
NGC Rigid 32023	Discontinuous sandwich panels	—	Grade data on request					On request
NGC Rigid 32123	Discontinuous sandwich panels	—	Grade data on request					On request
NGC Rigid 35023-DI	Discontinuous sandwich panels	—	Grade data on request					On request
NGC Rigid 35023-IL	Discontinuous sandwich panels	—	Grade data on request					On request
NGC Rigid 35035	B3 discontinuous panels	—	Grade data on request					On request
NGC Rigid 32135	Discontinuous panels	—	Grade data on request					On request
NGC Rigid 38097	Continuous panels	—	Grade data on request					On request
NGC Rigid 38029CP	Continuous panels	—	Grade data on request					On request

What your finished product is usually tested against

- EN 14509 Self-supporting double-skin metal-faced insulating panels
- EN 13165 Factory-made rigid PU (PUR/PIR) insulation
- EN 13501-1 Reaction-to-fire classification

We help you pick a grade for your target. Certification of the finished product stays with its maker.

NGC RIGID · 02

Spray insulation

Two-component PUR and PIR spray systems. 7 grades.



Illustrative image

NGC name	Use	Type	OH value mg KOH/g	Viscosity mPa·s, 25 °C	FRD kg/m³	MD kg/m³	Mix ratio polyol/iso, pbw	TDS
NGC Rigid 33545	Spray insulation	PUR	300–350	200–250	35–40	35–40	100/110–120	On request
NGC Rigid 34245	Spray insulation	PIR	300–350	200–250	40–45	40–45	100/135–145	On request
NGC Rigid 33544	Spray insulation	PUR	300–350	200–250	35–40	35–40	100/110–120	On request
NGC Rigid 34244	Spray insulation	PIR	300–350	200–250	40–45	40–45	100/135–145	On request
NGC Rigid 35031BE	B2 spray foam	—	Grade data on request					On request
NGC Rigid 35031MA	B2 spray foam	—	Grade data on request					On request
NGC Rigid 35031S	Spray foam	—	Grade data on request					On request

What your finished product is usually tested against

- EN 14315-1/-2 In-situ sprayed rigid PUR and PIR foam
- EN 13501-1 Reaction-to-fire classification

We help you pick a grade for your target. Certification of the finished product stays with its maker.

NGC RIGID · 03

Pipe insulation and pipe supports

Systems for pre-insulated pipe and a high-density system for pipe supports. 7 grades.



Illustrative image

NGC name	Use	Type	OH value mg KOH/g	Viscosity mPa·s, 25 °C	FRD kg/m³	MD kg/m³	Mix ratio polyol/iso, pbw	TDS
NGC Rigid 36300	Pipe line	PUR	300–350	250–350	24–28	38–40	100/120–125	On request
NGC Rigid 36500	Pipe line	PIR	300–350	250–350	24–28	38–40	100/135–145	On request
NGC Rigid 35006	Pipe line	PUR	300–350	250–350	24–28	38–40	100/120–125	On request
NGC Rigid 35060	Pipe line	PIR	300–350	250–350	24–28	38–40	100/135–145	On request
NGC Rigid 36400	Pipe line	PUR	300–350	250–350	24–28	38–40	100/120–125	On request
NGC Rigid 36040	Pipe line	PIR	300–350	250–350	24–28	38–40	100/135–145	On request
NGC Rigid 34210	Pipe support	PUR	380–400	850–1,150	200–300	300–400	100/110–120	On request

What your finished product is usually tested against

- EN 253 Pre-insulated bonded pipe systems for district heating

We help you pick a grade for your target. Certification of the finished product stays with its maker.

NGC RIGID · 04

Appliances, water heaters and thermoware

Systems for domestic and commercial fridges, coolers and freezers, water heaters and insulated thermoware. 12 grades.



Illustrative image

NGC name	Use	Type	OH value mg KOH/g	Viscosity mPa·s, 25 °C	FRD kg/m³	MD kg/m³	Mix ratio polyol/iso, pbw	TDS
NGC Rigid 32025R	Domestic refrigerator	PU	380–410	2,000–3,000	22–28	38–40	100/140–145	On request
NGC Rigid 32027R	Domestic refrigerator	PU	300–350	250–350	24–26	35–40	100/120–125	On request
NGC Rigid 32028R	Domestic refrigerator	PU	300–350	250–350	24–26	35–40	100/120–125	On request
NGC Rigid 32032R	Commercial refrigerator	PU	380–410	2,000–3,000	22–28	38–40	100/140–145	On request
NGC Rigid 32033R	Commercial refrigerator	PU	300–350	250–350	24–26	35–40	100/120–125	On request
NGC Rigid 32034R	Commercial refrigerator	PU	300–350	250–350	24–26	35–40	100/120–125	On request
NGC Rigid 32224	Water heater (electric and solar)	PUR	300–350	250–350	22–24	35–40	100/110–120	On request
NGC Rigid 32021	Thermoware	PUR	300–350	250–350	22–24	36–38	100/120–125	On request
NGC Rigid 32022	Thermoware	PUR	300–350	250–350	22–24	36–38	100/120–125	On request
NGC Rigid 32036	Water heater insulation	—	Grade data on request					On request
NGC Rigid 33515BAP	Coolers, freezers	—	Grade data on request					On request
NGC Rigid 32018HF	Solar water heaters	—	Grade data on request					On request

What your finished product is usually tested against

- Appliance makers usually set their own lambda, density and adhesion targets
- EU and GB F-gas rules for blowing agents

We help you pick a grade for your target. Certification of the finished product stays with its maker.

NGC RIGID · 05

Moulded parts, packaging and injection grouting

High-density systems for wood-imitation mouldings, foam for rotomoulded pallets, packaging foam and injection grouting. 6 grades.



Illustrative image

NGC name	Use	Type	OH value mg KOH/g	Viscosity mPa·s, 25 °C	FRD kg/m³	MD kg/m³	Mix ratio polyol/iso, pbw	TDS
NGC Rigid 34250	Wood imitation	PUR	350–400	800–1,200	200–350	300–400	100/110–120	On request
NGC Rigid 31038	Rotomoulded pallet	PUR	300–350	250–350	24–26	38–40	100/120–125	On request
NGC Rigid 33842	Rotomoulded pallet	PUR	300–350	250–350	24–26	38–40	100/120–125	On request
NGC Rigid 31421	Packaging foam	PU	250–300	800–1,000	12–16	18–20	100/100–110	On request
NGC Rigid 35065	Injection grouting	—	Grade data on request					On request
NGC Rigid 35965HG	Injection grouting	—	Grade data on request					On request

What your finished product is usually tested against

- Density, hardness and finish agreed per part

We help you pick a grade for your target. Certification of the finished product stays with its maker.

NGC RIGID · 06

In-situ pouring, block foam and general insulation

Pour-in-place, block (slab) foam and general-purpose insulation systems. 15 grades.



Illustrative image

NGC name	Use	Type	OH value mg KOH/g	Viscosity mPa·s, 25 °C	FRD kg/m³	MD kg/m³	Mix ratio polyol/iso, pbw	TDS
NGC Rigid 31705	In-situ pouring	PUR	300–350	250–350	28–32	38–40	100/125–130	On request
NGC Rigid 31706	In-situ pouring	PIR	300–350	250–350	28–32	38–40	100/135–145	On request
NGC Rigid 31805	In-situ pouring	PUR	300–350	250–350	28–32	38–40	100/125–130	On request
NGC Rigid 31806	In-situ pouring	PIR	300–350	250–350	28–32	38–40	100/135–145	On request
NGC Rigid 32429	Block foam	PUR	300–350	220–350	26–28	38–40	100/125–130	On request
NGC Rigid 32332	Block foam	PIR	300–350	220–350	26–28	38–40	100/135–145	On request
NGC Rigid 32729	Block foam	PUR	300–350	220–350	26–28	38–40	100/125–130	On request
NGC Rigid 32735	Block foam	PIR	300–350	220–350	26–28	38–40	100/135–145	On request
NGC Rigid 34555	General insulation	PUR	300–350	250–350	30–32	38–40	100/125–130	On request
NGC Rigid 35545	General insulation	PUR	290–340	250–350	30–32	38–40	100/125–130	On request
NGC Rigid 35018	In-situ pouring and general insulation, B2 grade	—	—	250–350	48–52	60–65	100/135–145	On request
NGC Rigid 33617HFC	In-situ: tanks, hulls	—	Grade data on request					On request
NGC Rigid 34017HFC	In-situ: tanks, hulls	—	Grade data on request					On request
NGC Rigid 35017I	In-situ pouring	—	Grade data on request					On request
NGC Rigid 37517	PIR in-situ insulation	PIR	Grade data on request					On request

What your finished product is usually tested against

- EN 14318-1/-2 In-situ dispensed rigid PUR and PIR foam
- EN 13165 Factory-made PU insulation (block cut to boards)

We help you pick a grade for your target. Certification of the finished product stays with its maker.

NGC FLEX · NGC SEAL

Flexible moulded foam, filter and gasket foam

NGC Flex systems for moulded high-resilience seating, furniture and bedding, and a flame-retardant grade for seating. NGC Seal for automotive filters and gaskets.



Illustrative image

High-resilience (HR) moulded foam

NGC name	Use	Mix ratio pbw	Core density kg/m³	TDS
NGC Flex 1790	Automotive seats	100/70–75	42–50	On request
NGC Flex 1791	Furniture and cushions	100/60–70	42–50	On request
NGC Flex 1793	Motorcycle, bicycle and tractor seats	100/60–70	42–50	On request
NGC Flex 1794	Mattresses	100/55–70	42–50	On request
NGC Flex 1795	Stress balls (smile balls)	100/45–50	36–40	On request
NGC Flex 1792	Mattresses, general purpose	Grade data on request		On request
NGC Flex 1796	Sport products (smiley balls)	Grade data on request		On request
NGC Flex 1797HD	High-density mattresses, sport products	Grade data on request		On request
NGC Flex 1798HD	High-density cushions, sport products	Grade data on request		On request

Flame-retardant moulded foam: NGC Flex 1798FR

Flame-retardant moulded foam: railway seats and beds, furniture cushions. Water blown; works with expandable graphite.

OH value, polyol	34–36 mg KOH/g
Viscosity, polyol	1,200–1,600 at 25 °C
Mix ratio	100/32–35 (blended polyol/iso)
Free-rise density	45–55 kg/m³
Moulded density	90–110 kg/m³
Iso component	NGC Prepol 9848
TDS	On request

Filter and gasket foam: NGC Seal 4464

Automotive air filters and gaskets.

Mix ratio	100/35–40
Material temperature	25–35 °C
Hardness	20–35 Shore A
Moulded density	300–350 kg/m³
Tensile strength	≥ 0.7 MPa
Elongation at break	≥ 220 %
TDS	On request

Flexible foam rules in the UK and EU

- UK domestic upholstery: the Furniture and Furnishings (Fire) (Safety) Regulations 1988; filling foams tested to BS 5852 ignition sources.
- Mattresses: BS 7177 and EN 597-1 and -2 for ignitability.
- Vehicle interiors: usually FMVSS 302 / ISO 3795 burn rate, plus the car maker's own specs.

These apply to your finished product. We help you pick a grade for the target.

NGC SKIN · NGC SOLE · NGC CAST

Integral skin, footwear and cast systems

NGC Skin systems mould a tough skin over a lighter core in one shot. 4 grades.



Illustrative image

Integral skin foam

NGC name	Use	Ratio pbw	Cream s	Gel s	Mould °C	Demould min	FRD kg/m³	MD kg/m³	OH value mg KOH/g	TDS
NGC Skin 2763	Chair handles, armrests, bicycle saddles	100/40–45	17–23	38–48	35–45	3–4	110–130	190–250	156	On request
NGC Skin 2765	Steering wheels, armrests	100/45–55	10–13	27–35	40–45	3–4	200–250	350–400	—	On request
NGC Skin 2763B	Armrests, saddles, furniture seats	Grade data on request								On request
NGC Skin 2785	High-density automotive floor mats	Grade data on request								On request

OH value of NGC Skin 2763 polyol is from its TDS (viscosity 780 mPa·s at 25 °C).

NGC Sole: footwear systems

PU systems for footwear parts, including polyether footbeds. Grade data on request. Polyester polyols for soles are in the NGC Polyester Polyols catalogue.

NGC Cast: cast elastomer systems

Systems for cast PU parts such as wheels, rollers and wear parts. Grade data on request.

Packaging, storage and safe handling

- Usually supplied in steel drums and 1,000-litre IBCs. Packs confirmed for your grade with each quote.
- Keep containers closed, dry and within the temperature range on the TDS. Isocyanates react with moisture: reseal part-used drums.
- Read the SDS before first use. Products with more than 0.1 % diisocyanates need documented user training first (EU REACH Annex XVII entry 74 and UK REACH).
- With every order: TDS and SDS for your market; certificate of analysis on request; lead time in writing.

CONTACT

Talk to Vinay

Tell us what you make and the grade you use today. We match a grade, send its TDS and SDS, and agree sample timing in writing.

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Request a sample, TDS or SDS at nextgenerationchemical.co.uk/contact/

How we work

1. **Tell us your process.** Product, line and the grade you use now.
2. **We match a grade.** With its TDS and SDS.
3. **Sample and trial.** On your own equipment.
4. **Written quote and lead time.** Before every order.
5. **Supply and support.** One named person for orders and documents.

Supply

Drums and IBCs. REACH status and lead time confirmed with each quote. Samples for trials. No prices in this catalogue: ask us for a quote.

Next Generation Chemical Ltd, registered in England and Wales, company no. 16617847. Croydon, London, UK. +44 7818 103874 (WhatsApp) · support@nextgenerationchemical.uk · nextgenerationchemical.co.uk.

All figures are typical values, not a specification. They are given in good faith as a guide and do not replace your own trials. Check the current TDS and SDS before use. NGC PU Systems catalogue, November 2026.