



Toilet Cleaning Products

Local. Global. Integrated.

Operating in 17 countries, in 39 different locations, PCC SE currently employs over 3 300 people.



About Us

PCC Exol SA is a major player in the European surfactants market. In the eastern and central-eastern part of the continent, it is the undisputed leader in its industry. Most of the production facilities and the company's headquarters are located in Brzeg Dolny, Poland. Here we develop, test and manufacture a wide range of anionic, non-ionic and amphoteric surfactants and speciality industrial formulations.

New products are continuously added to the portfolio in response to market trends and individual customer requirements. The surfactants produced at the plants have a very wide range of industrial applications. They

are used as wetting agents, emulsifiers, auxiliaries in paper, metallurgy and many other industries, as well as in household chemicals, personal care products and textiles.

PCC EXOL pays special attention to the issue of sustainable development, which is one of the key elements of the company's strategy. In order to strengthen its competitive position in the surfactants market, the company is committed to promoting responsible production and consumption throughout the value chain. The concept of sustainable development is therefore a key aspect of all the company's management and operational processes.

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<ul style="list-style-type: none"> • Polyether polyols • Polyester polyols • Prepolymers • Polyurethane Systems 	<ul style="list-style-type: none"> • Chlorine • MCAA • Other Chlorine Downstream Product 	<ul style="list-style-type: none"> • Phosphorus derivatives • Naphthalene derivatives • Polycarboxyethers (PCE) 	<ul style="list-style-type: none"> • Anionic surfactants • Cationic surfactants • Nonionic surfactants • Amphoteric surfactants (betaines) • Chemical formulation 	<ul style="list-style-type: none"> • Nonylphenol • Dodecylphenol • Tristyrylphenol
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Table of contents

Alkaline gel for toilet cleaning	6
Sodium Hypochlorite toilet gel version I	7
Sodium Hypochlorite toilet gel version II	8
Hydrogen Peroxide toilet gel	10
Acid gel for toilet cleaning	12
Hydrochloric Acid toilet gel version I	13
Hydrochloric Acid toilet gel version II high viscosity	14
Hydrochloric Acid toilet gel version III	15
Hydrochloric Acid toilet gel version IV	16
Disinfecting spray with Glycolic Acid	18
Disinfecting spray with Lactic and Amidosulfonic Acidmixture	19
Disinfecting spray with Salicylic and Amidosulfonic Acid mixture	20
Adhesive toilet gel	21
Adhesive toilet gel	22
Toilet block	23

A clean toilet – the key to a healthy, fresh home

Keeping your toilet clean is not just a matter of aesthetics, but above all of health and hygiene for the whole family. The toilet is one of the places in the home most prone to the growth of bacteria and unpleasant odours. Regular and effective cleaning keeps it fresh, prevents limescale and deposits from forming, and protects against the spread of microorganisms. Specialised toilet cleaners effectively remove dirt, neutralise odours and leave surfaces hygienically clean.

Thanks to modern formulas, they work not only on visible dirt, but also in hard-to-reach places – under the rim of the bowl or in drain pipes. Regular use of high-quality cleaning products makes cleaning easier, faster and more effective. A clean toilet means comfort for household members and guests. It also gives you the confidence that your home is well cared for in every detail.

Alkaline gel for toilet cleaning

Chemical name	Brand name	Concentration[%]	Function
Sodium Laureth Sulfate	SULFOROKAnol L227/1	6.0	Cleaning and foaming agent
Sodium Lauryl Sulfate	ROSULfan L/PH	2.0	Cleaning and foaming agent
Sodium Hypochlorite (15% of Active Chlorine)	Sodium Hypochlorite	34.0	Disinfectant
NaOH	Sodium Hydroxide	1.5	pH adjuster
Water and additives		up to 100	Solvent and additives

Procedure:

1. Mix **SULFOROKAnol L227/1**, **ROSULfan L/PH** with water.
2. Then add the Sodium Hypochlorite, NaOH and other additives.
3. Mix until a clear solution is obtained.
4. Measure the required parameters

Parameters

Appearance at 20–25°C	Clear solution
pH at 25°C	11-13
Viscosity at 20°C, cP	100-300



Sodium Hypochlorite toilet gel version I

Chemical name	Brand name	Concentration[%]	Function
Isotrideceth-9	ROKAnol IT9	6.0	Cleaning, foaming and wetting agent
Myristamine Oxide	Myristamine Oxide	5.0	Rheology modifier
Sodium Hypochlorite (18% of Active Chlorine)	Sodium Hypochlorite	30.0	Disinfectant
Potassium trisphosphonomethylamine oxide	Potassium trisphosphonomethylamine oxide	0.5	Chlorine stabilizer in Hypochlorite, corrosion inhibitor
NaOH	Sodium Hydroxide	0.5	pH adjuster
Water and additives		up to 100	Solvent and additives

Procedure:

1. Weigh out the specified amount of water.
2. Then add **ROKAnol IT9**.
3. Mix until a clear solution is obtained.
4. Then add Myristamine Oxide, Potassium trisphosphonomethylamine oxide, additives and mix until uniform.
5. Add Sodium Hydroxide to obtained pH in the mass around 11,1-11,3.
6. Finally, add Sodium Hypochlorite and mix until a clear liquid is obtained.
7. Measure the required parameters.

Parameters

Appearance at 20–25°C	Clear, yellow gel
pH at 25°C	10,5-12,0
Viscosity at 20°C, cP	100-400



Sodium Hypochlorite toilet gel version II

Chemical name	Brand name	Concentration[%]	Function
Sodium C12-15 Pareth Sulfate	SULFOROKAnol L370	8.5	Cleaning, foaming and wetting agent
Myristamine Oxide	Myristamine Oxide	5.0	Rheology modifier
Sodium Hypochlorite (18% of Active Chlorine)	Sodium Hypochlorite	30.0	Disinfectant
Potassium trisphosphonomethylamine oxide	Potassium trisphosphonomethylamine oxide	0.5	Chlorine stabilizer in Hypochlorite, corrosion inhibitor
NaOH	Sodium Hydroxide	0.5	pH adjuster
Water and additives		up to 100	Solvent and additives

Procedure:







1. Weigh out the specified amount of water.
2. Then add **SULFOROKAnol L370**.
3. Mix until a clear solution is obtained.
4. Then add Myristamine Oxide, Potassium trisphosphonomethylamine oxide, additives and mix until uniform.
5. Add Sodium Hydroxide to obtained pH in the mass around 11,1-11,3.
6. Finally, add Sodium Hypochlorite and mix until a clear liquid is obtained.
7. Measure the required parameters.

Parameters

Appearance at 20–25°C	Clear, yellow gel
pH at 25°C	10,5-12,0
Viscosity at 20°C, cP	100-400

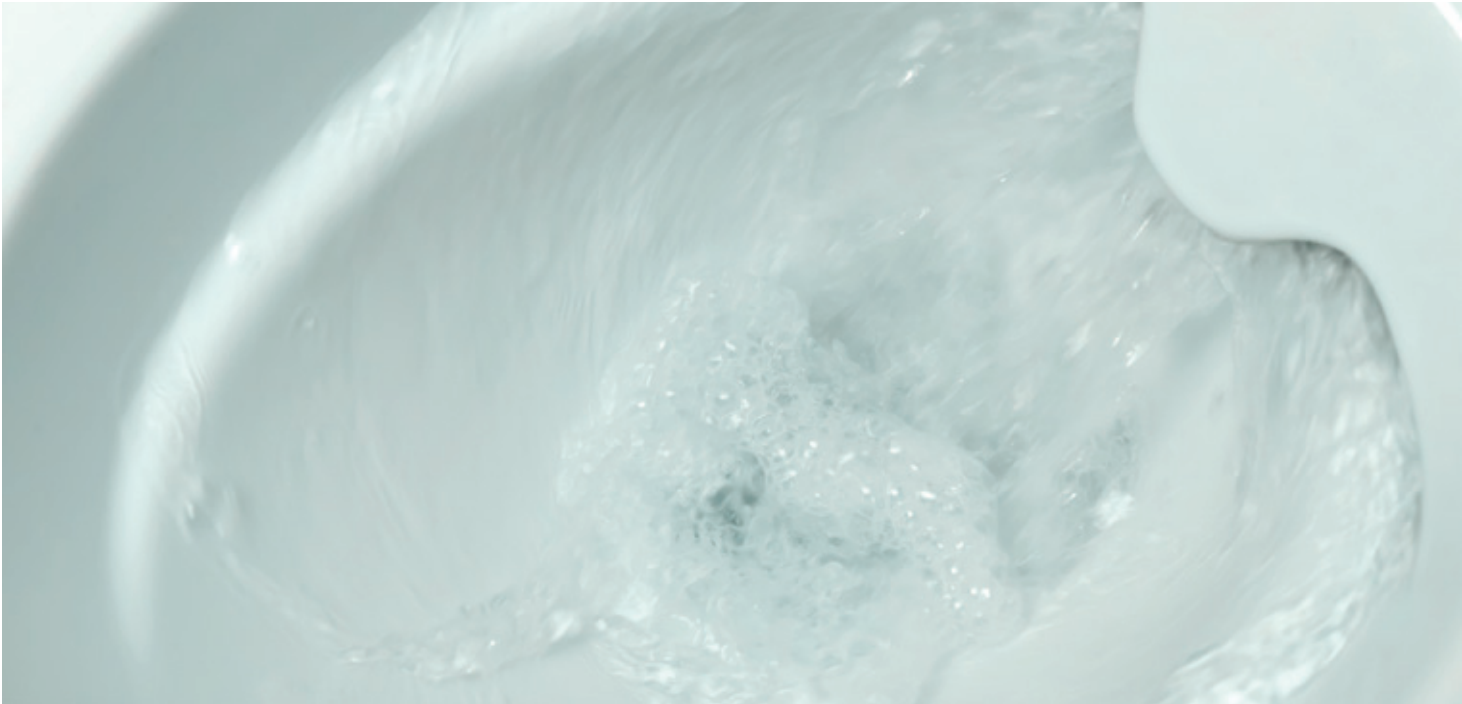


Performance test Sodium Hypochlorite toilet gel

Formulation	After spreading the gel on the toilet bowl	Foam after rinsing	Foam stability 10 minutes after rinsing
Sodium Hypochlorite toilet gel version I			
Sodium Hypochlorite toilet gel version II			

To verify the cleaning and foaming properties, practical tests were conducted on bathroom equipment. A toilet was used for the test. The product was evenly distributed around the toilet bowl. The next step was to flush the water. Photos were taken before cleaning (after spreading the gel on the toilet bowl), after rinsing and the last photo shows foam stability 10 minutes after rinsing.

The product was assessed by visually observing the foam height and stability. Additionally, the product’s rinsability from the toilet bowl was also assessed.



Hydrogen Peroxide toilet gel

Chemical name	Brand name	Concentration[%]	Function
C9-11 Pareth-9 /Alcohol C10 + EO/PO	OKAnol NL9/ROKAnol LP220	5.0	Cleaning, foaming and wetting agent
Tertiary Amine Ethoxylate	Tertiary Amine Ethoxylate	4.0	Rheology modifier
30% Hydrogen Peroxide	Hydrogen Peroxide	7.0	Disinfectant
1-Hydroxyethane-1,1-diphosphonic acid (HEDP)	Etidronic Acid	0.3	Complexing agents
Citric Acid, Monohydrate	Citric Acid	0.5	pH adjuster
Water and additives		up to 100	Solvent and additives

Procedure:

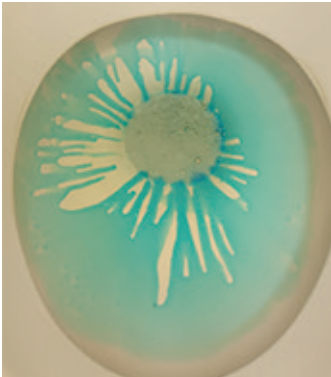
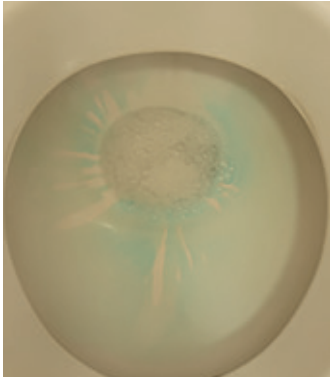


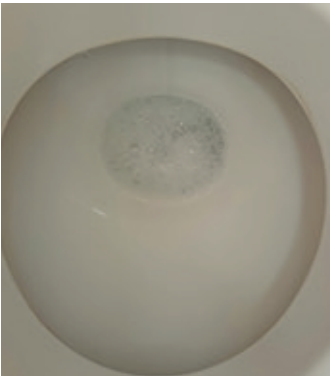

1. Weigh out the specified amount of water.
2. Then add **ROKAnol NL9** or **ROKAnol LP220**.
3. Mix until a clear solution is obtained.
4. Then add Tertiary Amine Ethoxylate, Etidronic Acid, additives and mix until uniform.
5. Add Citric Acid to obtained pH in the mass around 2,1-2,4.
6. Finally, add Hydrogen Peroxide and mix until a clear liquid is obtained.
7. Measure the required parameters.

Parameters

Appearance at 20–25°C	Clear, gel
pH at 25°C	2-3
Viscosity at 20°C, cP	100-300



Performance test Sodium Hypochlorite toilet gel

Formulation	After spreading the gel on the toilet bowl	Foam after rinsing	Foam stability 10 minutes after rinsing
Hydrogen Peroxide toilet gel with ROKAnol NL9			
Hydrogen Peroxide toilet gel with ROKAnol LP220			

To verify the cleaning and foaming properties, practical tests were conducted on bathroom equipment. A toilet was used for the test. The product was evenly distributed around the toilet bowl. The next step was to flush the water. Photos were taken before cleaning (after spreading the gel on the toilet bowl), after rinsing and the last photo shows foam stability 10 minutes after rinsing.

The product was assessed by visually observing the foam height and stability. Additionally, the product’s rinsability from the toilet bowl was also assessed.



Acid gel for toilet cleaning

Chemical name	Brand name	Concentration[%]	Function
C9-11 Pareth-5	ROKAnol NL5	1.0	Deep cleaning agent
Lactic Acid, 80%	Lactic Acid	12.5	Descaling agent / pH adjuster
Citric Acid, Monohydrate	Citric Acid	2.2	Descaling agent / pH adjuster
Xanthan Gum	Xanthan Gum	0.4	Rheology modifier
Tetrasodium Glutamate Diacetate (GLDA)	Tetrasodium Glutamate Diacetate	0.3	Sequestrant
Water and additives		up to 100	Solvent and additives

Procedure:

1. Add gradually Xanthan Gum to hot water of 50°C until complete dissolution.
2. Then mix the solution with **ROKAnol NL5**.
3. When the solution is homogeneous, add Citric Acid first and then Lactic Acid continuously mixing.
4. Finally, add the GLDA and other additives.
5. Mix until a clear solution is obtained.
6. Measure the required parameters

Parameters

Appearance at 20–25°C	Clear solution
pH at 25°C	1-3
Viscosity at 20°C, cP	200-400
Solidification point, °C	-5



Hydrochloric Acid toilet gel version I

Chemical name	Brand name	Concentration[%]	Function
Alcohols, C13-15 + 7 EO	ROKAnol TMP7	4.0	Cleaning, foaming and wetting agent
Tertiary Amine Ethoxylate	Tertiary Amine Ethoxylate	1.0	Rheology modifier
35% Hydrochloric Acid	Hydrochloric Acid	28.0	Descaling agent / pH adjuster
1-Hydroxyethane-1,1-diphosphonic acid (HEDP)	Etidronic Acid	0.3	Complexing agents
Water and additives		up to 100	Solvent and additives

Procedure:

1. Weigh out the specified amount of water.
2. Then add **ROKAnol TMP7**.
3. Mix until a clear solution is obtained.
4. Then add Tertiary Amine Ethoxylate, Etidronic Acid, additives and mix until uniform.
5. Finally, add Hydrochloric Acid and mix until a clear liquid is obtained.
6. Measure the required parameters.

Parameters

Appearance at 20–25°C	Clear, gel
pH at 25°C	1-2
Viscosity at 20°C, cP	200-400



Hydrochloric Acid toilet gel version II high viscosity

Chemical name	Brand name	Concentration[%]	Function
Alcohols, C13-15 + 7 EO	ROKAnol TMP7	4.0	Cleaning and wetting agent
Tertiary Amine Ethoxylate	Tertiary Amine Ethoxylate	4.0	Rheology modifier
35% Hydrochloric Acid	Hydrochloric Acid	28.0	Disinfectant
1-Hydroxyethane-1,1-diphosphonic acid (HEDP)	Etidronic Acid	0.3	Complexing agents
Water and additives		up to 100	Solvent and additives

Procedure:

1. Weigh out the specified amount of water.
2. Then add **ROKAnol TMP7**.
3. Mix until a clear solution is obtained.
4. Then add Tertiary Amine Ethoxylate, Etidronic Acid, additives and mix until uniform.
5. Finally, add Hydrochloric Acid and mix until a clear liquid is obtained.
6. Measure the required parameters.

Parameters

Appearance at 20–25°C	Clear, gel
pH at 25°C	1-2
Viscosity at 20°C, cP	1000-1500



Hydrochloric Acid toilet gel version III

Chemical name	Brand name	Concentration[%]	Function
Alcohols, C12-15 + 7 EO	ROKAnol DB7	4.0	Cleaning, foaming and wetting agent
Tertiary Amine Ethoxylate	Tertiary Amine Ethoxylate	4.0	Rheology modifier
35% Hydrochloric Acid	Hydrochloric Acid	28.0	Descaling agent / pH adjuster
1-Hydroxyethane-1,1-diphosphonic acid (HEDP)	Etidronic Acid	0.3	Complexing agents
Water and additives		up to 100	Solvent and additives

Procedure:

1. Weigh out the specified amount of water.
2. Then add **ROKAnol TMP7**.
3. Mix until a clear solution is obtained.
4. Then add Tertiary Amine Ethoxylate, Etidronic Acid, additives and mix until uniform.
5. Finally, add Hydrochloric Acid and mix until a clear liquid is obtained.
6. Measure the required parameters.

Parameters

Appearance at 20–25°C	Clear, gel
pH at 25°C	1-2
Viscosity at 20°C, cP	100-200



Hydrochloric Acid toilet gel version IV

Chemical name	Brand name	Concentration[%]	Function
Alcohols, C12-15 + 7 EO	ROKAnol DB7	4.0	Cleaning, foaming and wetting agent
Tertiary Amine Ethoxylate	Tertiary Amine Ethoxylate	5.0	Rheology modifier
35% Hydrochloric Acid	Hydrochloric Acid	28.0	Descaling agent / pH adjuster
1-Hydroxyethane-1,1-diphosphonic acid (HEDP)	Etidronic Acid	0.3	Complexing agents
Water and additives		up to 100	Solvent and additives

Procedure:



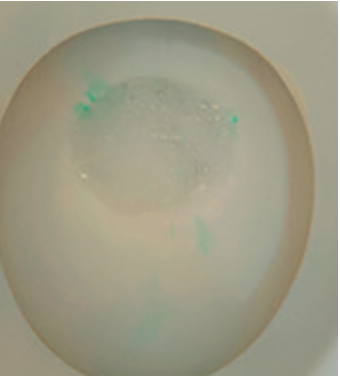

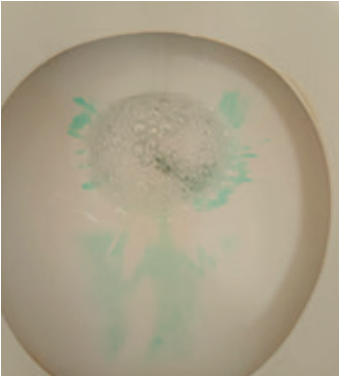

1. Weigh out the specified amount of water.
2. Then add **ROKAnol DB7**.
3. Mix until a clear solution is obtained.
4. Then add Tertiary Amine Ethoxylate, Etidronic Acid, additives and mix until uniform.
5. Finally, add Hydrochloric Acid and mix until a clear liquid is obtained.
6. Measure the required parameters.

Parameters

Appearance at 20–25°C	Clear, gel
pH at 25°C	1-2
Viscosity at 20°C, cP	200-400



Performance test Sodium Hypochlorite toilet gel

Formulation	After spreading the gel on the toilet bowl	Foam after rinsing	Foam stability 10 minutes after rinsing
Hydrochloric Acid toilet gel – II high viscosity			
Hydrochloric Acid toilet gel – III			

To verify the cleaning and foaming properties, practical tests were conducted on bathroom equipment. A toilet was used for the test. The product was evenly distributed around the toilet bowl. The next step was to flush the water. Photos were taken before cleaning (after spreading the gel on the toilet bowl), after rinsing and the last photo shows foam stability 10 minutes after rinsing.

The product was assessed by visually observing the foam height and stability. Additionally, the product’s rinsability from the toilet bowl was also assessed.



Disinfecting spray with Glycolic Acid

Chemical name	Brand name	Concentration[%]	Function
PEG-15 Cocomonium Methosulfate	ROKAmin K15K	3.0	Cleaning and wetting agent
Isodeceth-7/Alcohols, C13-15 + 7 EO/ C9-11 Pareth-8	ROKAnol ID7/ROKAnol TMP7/ ROKAnol NL8	4.0	Cleaning and foaming agent
Glycolic Acid	Glycolic Acid	5.0	Disinfectant / pH regulator
Water and additives		up to 100	Solvent and additives

Procedure:

1. Weigh out the specified amount of water.
2. Then add surfactants: **ROKAmin K15K** and **ROKAnol ID7/TMP7/NL8**.
3. Mix until a clear solution is obtained.
4. Then add Glycolic Acid, additives and mix until a homogeneous solution is obtained.
5. Measure the required parameters

Parameters

Appearance at 20–25°C	Clear liquid
pH at 25°C	1-3
Viscosity at 20°C, cP	<100



Disinfecting spray with Lactic and Amidosulfonic Acid mixture

Chemical name	Brand name	Concentration[%]	Function
Alcohols, C10 + 7 EO /Isotrideceth-8 /C9-11 Pareth-3 + C9-11 Pareth-6	ROKAnol GA7/ROKAnol IT8/ ROKAnol NL3+NL6 (50:50)	6.0	Cleaning and wetting agent
Lactic Acid	Lactic Acid	4.0	Disinfectant / pH regulator
Amidosulfonic Acid	Amidosulfonic Acid	4.0	Disinfectant / pH regulator
Water and additives		up to 100	Solvent and additives

Procedure:

1. Weigh out the specified amount of water.
2. Dissolve **ROKAnol GA7/IT8/NL3+NL6** in water.
3. Mix until a clear solution is obtained.
4. Then add Lactic Acid, Amidosulfonic Acid additives and mix until uniform.
5. Measure the required parameters.

Parameters

Appearance at 20–25°C	Clear liquid
pH at 25°C	1-2
Viscosity at 20°C, cP	<100



Disinfecting spray with Salicylic and Amidosulfonic Acid mixture

Chemical name	Brand name	Concentration[%]	Function
PEG-15 Cocoamine	ROKAmin K15	3.0	Cleaning and wetting agent
Isodeceth-7	ROKAnol ID7	5.0	Cleaning and wetting agent
Salicyli Acid	Salicylic Acid	1.0	Disinfectant / pH regulator
Amidosulfonic Acid	Amidosulfonic Acid	2.0	Disinfectant / pH regulator
Isopropyl Alcohol (40%), Ethyl Alcohol (60%)	Isopropyl Alcohol (40%), Ethyl Alcohol (60%)	4.0	Solvent
Water and additives		up to 100	Solvent and additives

Procedure:

1. Weigh out the specified amount of water.
2. Then add **ROKAmin K15** and **ROKAnol ID7**.
3. Mix until a clear solution is obtained.
4. Then add Amidosulfonic Acid and mix until uniform.
5. Combine Salicylic Acid with a mixture of Isopropyl Alcohol and Ethyl Alcohol in a separate container.
6. Then add the alcohol and acid solution to the other ingredients. Mix until uniform.
7. Measure the required parameters.

Parameters

Appearance at 20–25°C	Clear liquid
pH at 25°C	1-3
Viscosity at 20°C, cP	<100



Adhesive toilet gel

Chemical name	Brand name	Concentration[%]	Function
Ceteareth-25	ROKAnol T25	35.0	Thickener
Cocoamidopropyl Betaine	ROKAmina K30	16.0	Foaming agent
C9-11 Pareth-12	ROKAnol NL12W/80	4.0	Cleaning and foaming agent
Glycerin	Glycerin	5.0	Anti-drying agent
Water and additives		up to 100	Solvent and additives

Procedure:

1. Put **ROKAnol T25** in a reactor, add water heated to 80°C.
2. Mix until **ROKAnol T25** is completely dissolved.
3. Cool to 50°C and add **ROKAmina K30**, then mix.
4. Add **ROKAnol NL12W/80**, Glycerin and other additives
5. Mix until a clear solution is obtained.
6. Measure the required parameters

Parameters

Appearance at 20–25°C	Gel
pH at 25°C	5-6



Adhesive toilet gel

Chemical name	Brand name	Concentration[%]	Function
Cetareth-25	ROKAnol T25	35.0	Thickener
Sodium Laureth Sulfate	SULFOROKAnol L227/1	16.0	Foaming agent
Isotrideceth-12	ROKAnol IT12	3.2	Cleaning and foaming agent
Glycerin	Glycerin	5.0	Anti-drying agent
Water and additives		up to 100	Solvent and additives

Procedure:

1. Put **ROKAnol T25** in a reactor, add water heated to 80°C.
2. Mix until **ROKAnol T25** is completely dissolved.
3. Cool to 50°C and add **SULFOROKAnol L227/1**, then mix.
4. Add **ROKAnol IT12**, Glycerin and other additives
5. Mix until a clear solution is obtained.
6. Measure the required parameters

Parameters

Appearance at 20–25°C	Gel
pH at 25°C	5-6



Toilet block

Chemical name	Brand name	Concentration[%]	Function
Ceteareth-25	ROKAnol T25	75.0	Thickener
Cocoamidopropyl Betaine	ROKAmina K40HC	14.0	Foaming agent
PEG-135	POLIKOL 6000	10.0	Thickener
Additives		1.0	Additives

Procedure:

1. Add **ROKAnol T25**, **Polikol 6000** into a reactor and heat up to 80°C and then mix.
2. Then add **ROKAmina K40HC** and mix.
3. Cool to 50°C and add additives, then mix.
4. Pour into the form.

Parameters

Appearance at 20–25°C	Solid
pH at 25°C	5-6





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[**www.products.pcc.eu**](http://www.products.pcc.eu)



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The information in the catalogue is believed to be accurate and compiled to the best of our knowledge; however, it should be considered as introductory only. Detailed information about our products is available in TDS and MSDS.

The suggestions for product applications are based on our best knowledge.

The responsibility for the use of products in conformity or otherwise with the suggested application, and for determining product suitability for the user's own purposes rests with the user.

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