



ELTRESS – PQM6™ (Polyquaternium 6)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Clear to pale yellow liquid or gel (varies by type)
Physical Form	Liquid
Molecular Weight (g/mol)	491.06
Density or Specific Gravity	1.09 g/mL at 25 °C
Viscosity	60-180cP(25°C)
Refractive Index	n ₂₀ /D 1.417
Density	1.09 g/mL at 25 °C
pH	3.5-4.5 (Polyquaternium-7)
Thermal Properties	
Flash Point	100 °C
Thermal stability	Stable under normal conditions
Chemical Properties	
Solubility	Soluble in water, glycerin, propylene glycol
Incompatibilities	Incompatible with strong anionic surfactants in high concentrations

2. Processing Methods



Cosmetic cream

Add Polyquaternium to the cool-down phase of cream production to maintain its conditioning and film-forming properties. Mix gently to ensure even distribution without disrupting the emulsion stability.

Key Ingredients	Indicative Dosage (% w/w)
Water (Purified)	75.00%
Glycerin	1.00%
Polyquaternium-7	0.50%
Dimethylol Dimethyl Hydantoin (DMDMH)	0.40%
Carbomer	2.00%
Triethanolamine (TEA)	0.50%
Carboxymethylcellulose	0.70%
Propylene Glycol	1.00%
Panthenol	0.25%
Surfactant (e.g., Sodium Lauryl Sulfate)	25.00%
Preservative (e.g., Phenoxyethanol)	0.80%
Citric Acid	0.25%
Fragrance	0.20%

Hair shampoo

Add Polyquaternium during the cool-down phase to maintain its conditioning and film-forming properties. Ensure good mixing to prevent clumping and achieve even distribution in the shampoo.

Key Ingredients	Indicative Dosage (% w/w)
Primary surfactants	8-12%
Secondary surfactants	2-5%
Butters	20-40%
Polyquaternium	0.2-1%
Water	40-50%



Hair conditioners

When adding Polyquaternium to a hair conditioner, incorporate it during the cool-down phase to prevent degradation and maintain efficacy.

Key Ingredients	Indicative Dosage (% w/w)
Hydroxyethylcellulose	0.7%
Polyquaternium-10	0.6%
Choleth-24	2%
Laureth-4	2%
PVP (K30)	0.3%
Citric Acid	0.03%
Methylparaben	0.15%
Propylparaben	0.05%
Imidazolidinyl Urea	0.3%
Propylene Glycol	8%
SD 40 Alcohol	12%
Fragrance	0.5%
Water	



Facial Cleansers

Add Polyquaternium to the aqueous phase of the facial cleanser at room temperature to ensure stability and avoid breakdown. Mix gently but thoroughly to achieve uniform distribution without foaming or viscosity issues.

Key Ingredients	Indicative Dosage (% w/w)
Poloxamer 188	5%
PEG-8	5%
PPG-10 Methyl Glucose Ether	5%
Acrylates/Steareth-20 Methacrylate Copolymer	2.5%
Lauryl Pyrrolidone	0.5%
Triethanolamine	0.55
Polyquaternium-22	0.1%
Quaternium-15	0.05%
PEG-40 Castor Oil	0.015%
Essential Oil	0.015%
Water	80-90%

3. Dosing by Application

Products	Authorized dosage %
Skin Care	0.2-0.5%
Hair shampoo	0.2-0.5%
Conditioners	0.5-2%

The information and data contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof.

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