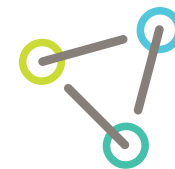


hair styling



selection guide



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# hair styling selection guide

Multi-functionality in product attributes, innovation in formulation aesthetics and variety in product forms, are essential to meeting today's consumer needs in hair styling. Ashland's design and development of a highly diversified product portfolio enables the performance expected in these applications.

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# styling polymers

key product function	charge definition				end-use application
	nonionic	anionic	pseudo cationic	amphoteric	
initial stiffness	PVP				pump and aerosol hair spray, spray mousses, creams, lotions, spray gel, Pump foamer/pastes/putties, glues
hold	PVP	gantrez™ es			aerosols and non aerosol hair sprays and mousses
style control		gantrez es	advantage™ lca,lca, s		aerosol and non aerosol hair spray and mousses
HHCR			advantage lca,lca, s copolymer 845-0 gafquat™ 755-0		hair spray only for advantage types copolymer and gafquat for mousses, clear gels and serums
shine		aquastyle™ 300	advantage lca,lca, s		aquastyle 300 for gels aerosol and non aerosol hair spray and mousses
body/volume				aquaflex™ xl 30	in pump sprays, clear gels, cream gels, <b>not in hair spray aerosols</b> , shampoos and conditioners
natural/flexible hold		aquastyle sh 100 gantrez es			aquastyle sh 100 in gels gantrez es in hair spray
non tacky		aquastyle sh 100	copolymer 845-0 styleze™ cc 10		aquastyle sh 100 for gels copolymer 845-0 for mousses, clear gels styleze cc 10 for mousses, styling sprays, clear gels and conditioning rinse
thermal protection			styleze cc 10 styleze w gafquat 755		aquastyle sh 100 for gels copolymer 845-0 for mousses, clear gels styleze cc 10 for mousses, styling sprays, clear gels and conditioning rinse



## gels, creams and lotions

- 
- clear gels
  - spray gels
  - opaque gels,  
creams and lotions

key  
 excellent good fair not available

trade name	clarity in carbomer	hold			film property		shine	sensory		use level (solids)	special features
		initial styling signal	HHCR	durability	flexible	stiff		degree of tack (during dry down)	hair/dry		
PVP k-15	excellent	not available	fair	fair	not available	not available	dry hair	Medium	Raspy	0.25–6.0%	Stiffness and tack/styling signal increases with K value; K-90 and K-120 have high yield value for sculpting
PVP k-30	excellent	not available	fair	fair	not available	good	dry hair	Medium	Raspy	0.25–6.0%	
PVP k-30 solution	excellent	not available	fair	fair	not available	good	dry hair	Medium	Raspy	0.25–6.0%	
PVP k-60	excellent	not available	fair	fair	not available	good	dry hair	High	Raspy	0.25–6.0%	
PVP k-90	excellent	not available	fair	fair	not available	excellent	dry hair	High	Raspy	0.25–3.0%	
PVP k-90 solution	excellent	not available	fair	fair	not available	excellent	dry hair	High	Raspy	0.25–3.0%	
PVP k-120	excellent	not available	fair	fair	not available	excellent	dry hair	High	Raspy	0.25–3.0%	
PVP/VA S-630	excellent	not available	fair	fair	not available	good	dry hair	Medium	Less raspy than PVP K-30	0.5–6.0%	More flexible than PVP; (W) in alcohol-free formulas
PVP/VA e-635; W-635	excellent	not available	fair	fair	not available	good	dry hair	Medium	Less raspy than PVP K-30	0.5–6.0%	
PVP/VA e-735; W-735	excellent	not available	fair	fair	not available	good	dry hair	Medium	Less raspy than PVP K-30	0.5–6.0%	
copolymer 845; 845-o	excellent	good	not available	not available	not available	excellent	dry hair	Low	Smooth	0.2–4.0%	High yield value for sculpting, detangling properties with Natrosol™ and N-Hance™ HP-40
gafquat™ 755n; 755n-o polymer	not available	not available	not available	not available	not available	good	dry hair	Low	Smooth	0.25–4.0%	
aquaflex™ xl-30 polymer	fair	not available	excellent	excellent	excellent	not available	dry hair	Medium	Smooth	0.25–4.0%	Long-lasting volume and root boost, can be used in alcohol-free formulations
aquastyle™ sh-100 polymer	excellent	good	excellent	excellent	excellent	good	dry hair	Low	Smooth	0.5–2.0%	Anti-frizz benefits, no flaking, reduces the amount of carbomer required to thicken gels
aquastyle 300 polymer	good	excellent	excellent	excellent	excellent	excellent	dry hair	High	Smooth	0.25–5.0%	Anti-frizz benefits
aquastyle 300 af polymer	good	excellent	excellent	excellent	excellent	excellent	dry hair	High	Smooth	0.25–5.0%	Anti-frizz benefits, enables alcohol-free claims

# clear gels

- PVP k-15
- PVP k-30
- PVP k-30 solution
- PVP k-60
- PVP k-90
- PVP k-90 solution
- PVP k-120
- PVP/VA S-630
- PVP/VA e-635; W-635
- PVP/VA e-735; W-735
- copolymer 845; 845-o
- gafquat™ 755n; 755n-o polymer
- aquaflex™ xl-30 polymer
- aquastyle™ sh-100 polymer
- aquastyle 300 polymer
- aquastyle 300 af polymer

Polymer performance and features may vary depending on use level and interaction with other ingredients in the formula.

key  
 excellent good fair not available

trade name	clarity in carbomer	hold			film property		shine dry hair	sensory		use level (solids)	special features
		initial styling signal	HHCR	durability	flexible	stiff		degree of tack (during dry down)	hair/dry		
PVP k-15	excellent	not available	not available	not available	not available	not available	not available	Medium	Raspy	0.25–6.0%	Stiffness and tack/styling signal increases with K value
PVP k-30	excellent	not available	not available	not available	not available	good	not available	Medium	Raspy	0.25–6.0%	
PVP k-30 solution	excellent	not available	not available	not available	not available	good	not available	Medium	Raspy	0.25–6.0%	
PVP k-60	excellent	excellent	not available	not available	not available	excellent	not available	High	Raspy	0.25–6.0%	
PVP k-90	excellent	excellent	not available	not available	not available	excellent	not available	High	Raspy	0.25–3.0%	
PVP/VA s-630	excellent	not available	not available	not available	not available	good	not available	Medium	Less Raspy than PVP K-30	0.5–6.0%	More flexible than PVP; (W) in alcohol-free formulas
PVP/VA e-635; w-635	excellent	not available	not available	not available	not available	good	not available	Medium	Less Raspy than PVP K-30	0.5–6.0%	
PVP/VA e-735; w-735	excellent	not available	not available	not available	not available	good	not available	Medium	Less Raspy than PVP K-30	0.5–6.0%	
copolymer 845; 845-o	excellent	good	not available	not available	not available	excellent	not available	Low	Smooth	0.2–4.0%	High yield value for sculpting, low tack after dry
gafquat™ 440 polymer	not available	not available	not available	not available	good	not available	not available	Low	Smooth	0.2–8.0%	Smooth, silky feel
gafquat 755n; 755n-o polymer	not available	not available	not available	not available	good	not available	not available	Low	Smooth	0.25–4.0%	Smooth flexible hold, high yield value for sculpting, low tack after dry, thermal/mechanical protection
gafquat hs-100; hs-100-o polymer	not available	not available	not available	not available	good	not available	not available	Low	Smooth	2.0–4.0%	Excellent stability at pH extremes
advantage™ s polymer	not available	good	excellent	excellent	good	excellent	excellent	High	Smooth	0.5–4.0%	High shine, easy and quick dispersibility
aquaflex™ xl-30 polymer	not available	not available	excellent	not available	not available	not available	not available	Medium	Smooth	0.25–4.0%	Long-lasting volume and root boost, alcohol-free formulations
aquastyle™ sh-100 polymer	excellent	good	excellent	not available	not available	good	not available	Low	Smooth	up to 0.75%	Anti-frizz benefits, no flaking, reduces the amount of carbomer required to thicken gels
aquastyle 300 polymer	good	excellent	not available	not available	not available	not available	not available	High	Smooth	0.25–5.0%	Anti-frizz benefits
aquastyle 300 af polymer	good	excellent	not available	not available	not available	not available	not available	High	Smooth	0.25–5.0%	Anti-frizz benefits, enables alcohol-free claims

# spray gels

- PVP k-15
- PVP k-30
- PVP k-30 solution
- PVP k-60
- PVP k-90
- PVP/VA s-630
- PVP/VA e-635; w-635
- PVP/VA e-735; w-735
- copolymer 845; 845-o
- gafquat™ 440 polymer
- gafquat™ 755n; 755n-o polymer
- gafquat hs-100; hs-100-o polymer
- advantage™ s polymer
- aquaflex™ xl-30 polymer
- aquastyle™ sh-100 polymer
- aquastyle™ 300 polymer
- aquastyle 300 af polymer

Polymer performance and features may vary depending on use level and interaction with other ingredients in the formula.

key  
 excellent good fair not available

trade name	hold			shine	sensory		use level (solids)	special features
	initial styling signal	HHCR	durability	dry hair	degree of tack (during dry down)	hair/dry		
PVP k-15					Medium	Raspy	0.25–6.0%	Stiffness and tack/styling signal increases with K value
PVP k-30					Medium	Raspy	0.25–6.0%	
PVP k-30 solution					Medium	Raspy	0.25–6.0%	
PVP k-60	excellent				Medium	Raspy	0.25–6.0%	
PVP k-90	excellent				Medium	Raspy	0.25–3.0%	
PVP k-90 solution	excellent				Medium	Raspy	0.25–3.0%	
PVP k-120	good				Medium	Raspy	0.25–3.0%	More flexible than PVP;(W) in alcohol-free formulas
PVP/VA s-630					Medium	Less Raspy than PVP K-30	0.5–6.0%	
PVP/VA e-635; w-635					Medium	Less Raspy than PVP K-30	0.5–6.0%	
PVP/VA e-735; w-735					Medium	Less Raspy than PVP K-30	0.5–6.0%	Smooth flexible hold, high yield value for sculpting, Copolymer 937 has a lower tack during dry down than 845
copolymer 845; 845-o	good			good	Low	Smooth	0.2–4.0%	
copolymer 937				good	Low	Smooth	0.5–4.0%	Smooth, silky feel
gafquat™ 440 polymer				good	Low	Smooth	0.25–8.0%	
gafquat 755n; 755n-o polymer				good	Low	Smooth	0.25–4.0%	Thermal/mechanical protection
gafquat hs-100; hs-100-o polymer				good	Low	Smooth	2.0–4.0%	Excellent stability at pH extremes
advantage™ s polymer	good	excellent	excellent	excellent	High	Smooth	0.5–4.0%	Easy and quick dispersibility, enables alcohol-free styling
advantage s solution polymer	good	excellent	excellent	excellent	High	Smooth	0.5–4.0%	
aquaflex™ xl-30 polymer		excellent	excellent	good	Medium	Smooth	0.25–4.0%	Long-lasting volume and root boost, alcohol-free formulations
styleze™ cc10 polymer	good	excellent	excellent	good	Medium	Smooth	0.25–2.0%	Thermal protection, clean feel
styleze w-17 polymer	good	excellent	excellent	good	Medium	Smooth	0.25–2.0%	Color protection, thermal protection, clean feel
aquastyle™ sh-100 polymer	good	excellent	excellent	good	Low	Smooth	0.5–2.0%	Anti-frizz benefits, no flaking, reduces the amount of carbomer required to thicken gels
aquastyle 300 polymer	excellent	excellent	excellent	excellent	High	Smooth	0.25–5.0%	Anti-frizz benefits
aquastyle 300 af polymer	excellent	excellent	excellent	excellent	High	Smooth	0.25–5.0%	Anti-frizz benefits, enables alcohol-free claims

# opaque gels, creams and lotions

- PVP k-15
- PVP k-30
- PVP k-30 solution
- PVP k-60
- PVP k-90
- PVP k-90 solution
- PVP k-120
- PVP/VA s-630
- PVP/VA e-635; w-635
- PVP/VA e-735; w-735
- copolymer 845; 845-o
- copolymer 937
- gafquat™ 440 polymer
- gafquat 755n; 755n-o polymer
- gafquat hs-100; hs-100-o polymer
- advantage™ s polymer
- advantage s solution polymer
- aquaflex™ xl-30 polymer
- styleze™ cc10 polymer
- styleze w-17 polymer
- aquastyle™ sh-100 polymer
- aquastyle 300 polymer
- aquastyle 300 af polymer

Polymer performance and features may vary depending on use level and interaction with other ingredients in the formula.



## hair sprays

- aerosol low VOC hairsprays
- aerosol high VOC hairsprays
- non-aerosol hairsprays



key			
excellent	good	fair	not available

trade name	propellant tolerance		film property		hold		sensory	spray aesthetics	use level (solids)	special features
	hydrofluorocarbon (152a)	dimethylether	flexible	stiff	HHCR	durability	hair/dry			
advantage™ lc-a polymer									0.5–4.0%	Excellent shine
advantage lc-e polymer <sup>1</sup>									0.5–4.0%	Superior wetting agent, excellent shine
advantage s polymer									0.5–4.0%	Excellent shine, quick dispersability, alcohol-free styling
advantage s solution polymer									0.5–4.0%	
advantage plus polymer									0.5–5.0%	Improves performance when used in conjunction with Gantrez products
advantage 4910 polymer									0.5–5.0%	Can be used to formulate anhydrous hydroalcoholic and water based systems
aquaflex™ fx-64 polymer									0.25–5.0%	Good curl memory, provides shine
aquaflex fx-64 re polymer									0.25–5.0%	Good curl memory, provides shine, reduced alcohol content to enable low VOC formulations
aquaflex sf-40 polymer									1.0–5.0%	Provides 'natural feel' hold
gantrez™ a-425 polymer									0.5–7.0%	The progression from Gantrez ES-225 through ES-335 to ES-425/435 leads to a softer film, increasing humidity resistance and better compatibility with propellants
gantrez es-225 polymer									0.5–7.0%	
gantrez es-335 polymer									0.5–7.0%	
gantrez es-425 polymer									0.5–7.0%	
gantrez es-435 polymer									0.5–7.0%	
gantrez sp-215 polymer									0.5–7.0%	Designed for use in stiffer, harder holding products, ideal in high solid pump sprays
omnirez™ 2000 polymer									0.5–8.0%	Excellent shine, can be used in water-based pump sprays

<sup>1</sup>Available in EU only

# aerosol low VOC hairsprays

- advantage™ lc-a polymer
- advantage lc-e polymer<sup>1</sup>
- advantage s polymer
- advantage s solution polymer
- advantage plus polymer
- advantage 4910 polymer
- aquaflex™ fx-64 polymer
- aquaflex fx-64 re polymer
- aquaflex sf-40 polymer
- gantrez™ a-425 polymer
- gantrez es-225 polymer
- gantrez es-335 polymer
- gantrez es-425 polymer
- gantrez es-435 polymer
- gantrez sp-215 polymer
- omnirez™ 2000 polymer

Polymer performance and features may vary depending on use level and interaction with other ingredients in the formula.

key  
 excellent good fair not available

trade name	propellant tolerance		film property		hold		sensory	spray aesthetics	use level (solids)	special features
	hydrocarbon (propane/butane)	dimethylether	flexible	stiff	HHCR	durability	hair/dry			
advantage™ lc-a polymer									0.5–4.0%	Excellent shine
advantage lc-e polymer <sup>1</sup>									0.5–4.0%	Superior wetting agent, excellent shine
advantage s polymer									0.5–4.0%	Excellent shine, quick dispersability, alcohol-free styling
advantage s solution polymer									0.5–4.0%	
advantage plus polymer									0.5–5.0%	Improves performance when used in conjunction with Gantrez products
advantage 4910 polymer									0.5–5.0%	Can be used to formulate anhydrous hydroalcoholic and water based systems
aquaflex™ fx-64 polymer									0.25–5.0%	Good curl memory, provides shine
aquaflex sf-40 polymer									1.0–5.0%	Provides "natural feel" hold
gantrez™ a-425 polymer									0.5–7.0%	The progression from Gantrez ES-225 through ES-335 to ES-425/435 leads to a softer film, increasing humidity resistance and better compatibility with propellants
gantrez es-225 polymer									0.5–7.0%	
gantrez es-335 polymer									0.5–7.0%	
gantrez es-425 polymer									0.5–7.0%	
gantrez es-435 polymer									0.5–7.0%	
gantrez sp-215 polymer									0.5–7.0%	Designed for use in stiffer, harder holding products, ideal in high solid pump sprays
PVP K-15									0.25–6.0%	Stiffness and tack/styling signal increases with K value
PVP K-15 solution									0.25–6.0%	
PVP K-30									0.25–6.0%	
PVP K-30 solution									0.25–6.0%	
PVP/VA E-335									0.5–6.0%	More flexible than PVP; Hydrocarbon tolerance: PVP/VA E-735 > PVP/VA E-535 > PVP/VA E-335
PVP/VA E-535									0.5–6.0%	
PVP/VA I-335									0.5–6.0%	
PVP/VA I-535									0.5–6.0%	
PVP/VA E-635									0.5–6.0%	
PVP/VA E-735									0.5–6.0%	

<sup>1</sup>Available in EU only

Polymer performance and features may vary depending on use level and interaction with other ingredients in the formula.

# aerosol high VOC hairsprays

- advantage™ lc-a polymer
- advantage lc-e polymer<sup>1</sup>
- advantage s polymer
- advantage s solution polymer
- advantage plus polymer
- advantage 4910 polymer
- aquaflex™ fx-64 polymer
- aquaflex sf-40 polymer
- gantrez™ a-425 polymer
- gantrez es-225 polymer
- gantrez es-335 polymer
- gantrez es-425 polymer
- gantrez es-435 polymer
- gantrez sp-215 polymer
- PVP k-15
- PVP k-15 solution
- PVP k-30
- PVP k-30 solution
- PVP/VA e-335
- PVP/VA e-535
- PVP/VA i-335
- PVP/VA i-535
- PVP/VA e-635
- PVP/VA e-735

key  
 excellent good fair not available

trade name	film property		hold		sensory	spray aesthetics	use level (solids)	special features
	flexible	stiff	HHCR	durability	hair/dry			
advantage™ lc-a polymer							0.5–4.0%	Excellent shine
advantage lc-e polymer <sup>1</sup>							0.5–4.0%	Superior wetting agent, excellent shine
advantage s polymer							0.5–4.0%	Excellent shine, quick dispersability, alcohol-free styling
advantage s solution polymer							0.5–4.0%	
advantage plus polymer							0.5–5.0%	Improves performance when used in conjunction with Gantrez products
advantage 4910 polymer							0.5–5.0%	Can be used to formulate anhydrous hydroalcoholic and water based systems
aquaflex™ fx-64 polymer							0.25–7.0%	Good curl memory, provides shine
aquaflex fx-64 re polymer							0.25–7.0%	Good curl memory, provides shine, reduced alcohol content to enable low VOC formulations
aquaflex sf-40 polymer							0.5–5.0%	Provides "natural feel" hold
gantrez™ a-425 polymer							0.5–7.0%	the progression from gantrez es-225 through es-335 to es-425/435 leads to a softer film, increasing humidity resistance and better compatibility with propellants
gantrez es-225 polymer							0.5–7.0%	
gantrez es-335 polymer							0.5–7.0%	
gantrez es-425 polymer							0.5–7.0%	
gantrez es-435 polymer							0.5–7.0%	
gantrez sp-215 polymer							0.5–7.0%	
omnirez™ 2000 polymer							0.5–8.0%	excellent shine
PVP k-15							0.25–6.0%	Stiffness and tack/styling signal increases with K value
PVP k-15 solution							0.25–6.0%	
PVP k-30							0.25–6.0%	
PVP k-30 solution							0.25–6.0%	
PVP/VA e-335							0.5–6.0%	More flexible than PVP
PVP/VA e-535							0.5–6.0%	
PVP/VA i-335							0.5–6.0%	
PVP/VA i-535							0.5–6.0%	
PVP/VA e-635							0.5–6.0%	
PVP/VA e-735							0.5–6.0%	

<sup>1</sup>Available in EU only

Polymer performance and features may vary depending on use level and interaction with other ingredients in the formula.

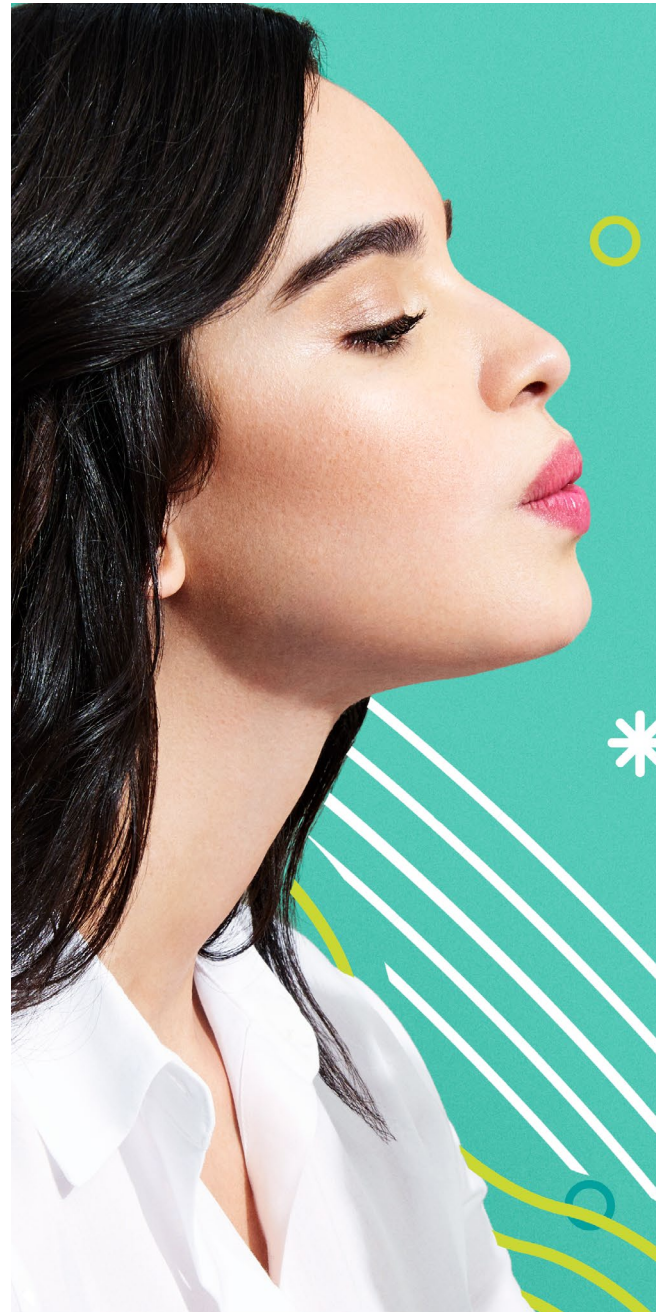
# non-aerosol hairsprays

- advantage™ lc-a polymer
- advantage lc-e polymer<sup>1</sup>
- advantage s polymer
- advantage s solution polymer
- advantage plus polymer
- advantage 4910 polymer
- aquaflex™ fx-64 polymer
- aquaflex fx-64 re polymer
- aquaflex sf-40 polymer
- gantrez™ a-425 polymer
- gantrez es-225 polymer
- gantrez es-335 polymer
- gantrez es-425 polymer
- gantrez es-435 polymer
- gantrez sp-215 polymer
- omnirez™ 2000 polymer
- PVP k-15
- PVP k-15 solution
- PVP k-30
- PVP k-30 solution
- PVP/VA e-335
- PVP/VA e-535
- PVP/VA i-335
- PVP/VA i-535
- PVP/VA e-635
- PVP/VA e-735



## mousse

- 
- mousse classifications
- aerosol low VOC mousses
- aerosol high VOC mousses
- non-aerosol mousses



key  
 excellent good fair not available

trade name	styling	conditioning
advantage™ s polymer	excellent	fair
advantage s solution polymer	excellent	fair
advantage 4910 polymer	excellent	fair
aquaflex™ fx-64 polymer	good	not available
aquaflex fx-64 re polymer	good	not available
aquaflex xl-30 polymer	excellent	not available
aquastyle™ 300 polymer	excellent	not available
aquastyle 300 af polymer	excellent	fair
copolymer 845; 845-o	excellent	fair
copolymer 937	excellent	fair
copolymer 958	excellent	good
gafquat™ 440 polymer	excellent	good
gafquat 755n; 755n-o polymer	excellent	excellent
gafquat hs-100; hs-100-o polymer	excellent	excellent
gantrez™ a-425 polymer	good	excellent
gantrez es-225 polymer	good	not available
gantrez es-335 polymer	good	not available

trade name	styling	conditioning
gantrez™ es-425 polymer	excellent	not available
gantrez es-435 polymer	excellent	not available
gantrez sp-215 polymer	excellent	not available
omnirez™ 2000 polymer	excellent	not available
pvp k-15	not available	not available
pvp k-30	not available	not available
pvp k-30 solution	not available	not available
pvp k-60	good	not available
pvp k-90	excellent	not available
pvp k-90 solution	excellent	not available
pvp k-120	excellent	not available
pvp/va s-630	good	not available
pvp/va e-635; w-635	good	not available
pvp/va e-735; w-735	good	not available
styleze cc-10 polymer	excellent	good
styleze w-17 polymer	excellent	excellent

# mousse classifications

Polymer performance and features may vary depending on use level and interaction with other ingredients in the formula.  
 Other additives can impact the tack and feel of the mousse formulations  
 Foam feel can be impacted by the packaging and the foam agent.

key  
 excellent good fair not available

trade name	HHCR	film property		sensory		use level (solids)	special features
		stiff	flexible	degree of tack (during dry down)	hair/dry		
advantage™ S polymer				High	Smooth	0.5–4.0%	High shine
advantage s solution polymer				High	Smooth	0.5–4.0%	High shine, enables alcohol-free styling
advantage 4910 polymer				Medium/High	Raspy	0.25–4.0%	Can be used to formulate anhydrous hydroalcoholic and water based systems
aquaflex™ xl-30 polymer				Medium	Smooth	0.25–4.0%	Volume and root boost, easy dispersibility
aquastyle™ 300 af polymer				High	Smooth	0.25–5.0%	Anti-frizz benefits, excellent shine
copolymer 845; 845-o				Low	Smooth	0.2–4.0%	High detangling, good slip
copolymer 937				Low	Smooth	0.2–4.0%	Higher cushion, ease of combing, better slip vs. Copolymer 845
gafquat™ 440 polymer				Low	Smooth	0.25–8.0%	Builds body, enhances hair luster
gafquat 755n; 755n-o polymer				Low	Smooth	0.25–4.0%	Protection from damage caused by blow dryers, good detangling
gafquat hs-100; hs-100-o polymer				Low	Smooth	0.25–4.0%	Excellent stability at pH extremes, strengthens the foam ball and individual bubbles
omnirez™ 2000 polymer				Medium	Smooth	0.5–8.0%	Quick dispersion on hair
pvp/va s-630 polymer				High	Raspy	0.5–6.0%	Slightly stiffer than the PVP/VA W-635 and W-735 polymers
pvp/va w-635				High	Raspy	0.5–6.0%	Builds initial volume, quick dispersion on hair, less raspy than PVP polymers
pvp/va w-735				High	Raspy	0.5–6.0%	
styleze™ cc-10 polymer				Medium	Smooth	0.25–2.0%	Thermal protection, provides cushion, good detangling and strengthens the foam ball (provides shape/keeps integrity)
styleze w-17 polymer				Medium	Smooth	0.25–2.0%	Thermal protection, provides extra slip, durable, luxurious dense foam

# aerosol low VOC mousses

- advantage™ S polymer
- advantage s solution polymer
- advantage 4910 polymer
- aquaflex™ xl-30 polymer
- aquastyle™ 300 af polymer
- copolymer 845; 845-o
- copolymer 937
- gafquat™ 440 polymer
- gafquat 755n; 755n-o polymer
- gafquat hs-100; hs-100-o polymer
- omnirez™ 2000 polymer
- pvp/va s-630 polymer
- pvp/va w-635
- pvp/va w-735
- styleze™ cc-10 polymer
- styleze w-17 polymer

Polymer performance and features may vary depending on use level and interaction with other ingredients in the formula.

Other additives can impact the tack and feel of the mousse formulations

Foam feel can be impacted by the packaging and the foam agent.

key  
 excellent good fair not available

trade name	HHCR	film property		sensory		use level (solids)	special features
		stiff	flexible	degree of tack (during dry down)	hair/dry		
advantage™ s polymer	excellent	excellent	fair	High	Smooth	0.5–4.0%	High shine
advantage s solution polymer	excellent	excellent	fair	High	Smooth	0.5–4.0%	High shine, enables alcohol-free styling
advantage 4910 polymer	excellent	excellent	fair	Medium/High	Raspy	0.25–4.0%	Can be used to formulate anhydrous hydroalcoholic and water based systems
aquaflex™ fx-64 polymer	good	excellent	fair	Medium	Smooth	0.25–5.0%	Good curl memory, provides shine
aquaflex xl-30 polymer	excellent	not available	excellent	Medium	Smooth	0.25–4.0%	Volume and root boost, easy dispersibility
aquastyle™ 300 polymer	excellent	excellent	excellent	High	Smooth	0.25–5.0%	Anti-frizz benefits, excellent shine
aquastyle 300 af polymer	excellent	excellent	excellent	High	Smooth	0.25–5.0%	
copolymer 845; 845-o	fair	not available	excellent	Low	Smooth	0.2–4.0%	High detangling, good slip
copolymer 937	fair	not available	excellent	Low	Smooth	0.2–4.0%	Higher cushion, ease of combing, better slip vs. Copolymer 845
copolymer 958	fair	not available	excellent	Low	Smooth	0.2–4.0%	Ease of combing
gafquat™ 440 polymer	fair	not available	good	Low	Smooth	0.25–8.0%	Smooth, silky feel, high luster
gafquat 755n; 755n-o polymer	fair	not available	good	Low	Smooth	0.25–4.0%	Protection from damage caused by brushing while blow-drying
gafquat hs-100; hs-100-o polymer	fair	not available	good	Low	Smooth	2.0–4.0%	Excellent stability at pH extremes, strengthens the foam ball and individual bubbles
gantrez™ a-425 polymer	good	good	good	High	Moderately Smooth	0.5–7.0%	Natural feel, high shine  The progression from Gantrez ES-225 through ES-335 to ES-425/435 leads to a softer film, increasing humidity resistance and better compatibility with propellants
gantrez es-225 polymer	good	good	good	High	Moderately Smooth	0.5–7.0%	
gantrez es-335 polymer	good	good	good	High	Moderately Smooth	0.5–7.0%	
gantrez es-425 polymer	good	good	good	High	Moderately Smooth	0.5–7.0%	
gantrez es-435 polymer	good	good	good	High	Moderately Smooth	0.5–7.0%	
gantrez sp-215 polymer	good	good	good	High	Moderately Smooth	0.5–7.0%	Used in stiff, hard holding products
pvp/va s-630	fair	not available	fair	High	Raspy	0.5–6.0%	Slightly stiffer than the PVP/VA W-635 and W-735 polymers
pvp/va w-635	fair	not available	fair	High	Raspy	0.5–6.0%	Builds initial volume, quick dispersion on hair, less raspy than PVP polymers
pvp/va w-735	fair	not available	fair	High	Raspy	0.5–6.0%	
styleze™ cc-10 polymer	good	fair	excellent	Medium	Smooth	0.25–2.0%	Thermal protection, provides cushion, good detangling and strengthens the foam ball (provides shape)
styleze w-17 polymer	excellent	good	excellent	Medium	Very Smooth	0.25–2.0%	Thermal protection, provides extra slip, durable, luxurious dense foam

Polymer performance and features may vary depending on use level and interaction with other ingredients in the formula.

Other additives can impact the tack and feel of the mousse formulations

Foam feel can be impacted by the packaging and the foam agent.

# aerosol high VOC mousses

- advantage™ s polymer
- advantage s solution polymer
- advantage 4910 polymer
- aquaflex™ fx-64 polymer
- aquaflex xl-30 polymer
- aquastyle™ 300 polymer
- aquastyle 300 af polymer
- copolymer 845; 845-o
- copolymer 937
- copolymer 958
- gafquat™ 440 polymer
- gafquat 755n; 755n-o polymer
- gafquat hs-100; hs-100-o polymer
- gantrez™ a-425 polymer
- gantrez es-225 polymer
- gantrez es-335 polymer
- gantrez es-425 polymer
- gantrez es-435 polymer
- gantrez sp-215 polymer
- pvp/va s-630
- pvp/va w-635
- pvp/va w-735
- styleze™ cc-10 polymer
- styleze w-17 polymer

key  
 excellent good fair not available

trade name	HHCR	film property		sensory		use level (solids)	special features
		stiff	flexible	degree of tack (during dry down)	hair/dry		
advantage™ s polymer				High	Smooth	0.5–4.0%	High shine, alcohol-free styling
advantage s solution polymer				High	Smooth	0.5–4.0%	High shine
advantage 4910 polymer				Medium/High	Raspy	0.25–4.0%	Can be used to formulate anhydrous hydroalcoholic and water based systems
aquaflex™ fx-64 polymer				Medium	Smooth	0.25–7.0%	Good curl memory, provides shine
aquaflex fx-64 re polymer				Medium	Smooth	0.25–7.0%	Good curl memory, provides shine, reduced alcohol content to enable low VOC formulations
aquaflex xl-30 polymer				Low	Smooth	0.25–4.0%	Volume and root boost, easy dispersibility
aquastyle™ 300 polymer				High	Smooth	0.25–5.0%	Anti-frizz benefits, excellent shine
aquastyle 300 af polymer				High	Smooth	0.25–5.0%	
copolymer 845; 845-o				Low	Smooth	0.2–4.0%	High detangling, good slip
copolymer 937				Low	Smooth	0.2–4.0%	Higher cushion, ease of combing, better slip vs. Copolymer 845
copolymer 958				Low	Smooth	0.2–4.0%	Ease of combing
gafquat™ 440 polymer				Low	Smooth	0.25–8.0%	Smooth, silky feel, high luster
gafquat 755n; 755n-o polymer				Low	Very Smooth	0.25–4.0%	Protection from damage caused by brushing while blow-drying
pvp k-15				Medium	Raspy	0.25–6.0%	Stiffness and tack/styling signal increases with K value
pvp k-30				Medium	Raspy	0.25–6.0%	
pvp k-30 solution				Medium	Raspy	0.25–6.0%	
pvp k-60				Medium	Raspy	0.25–6.0%	
pvp k-90				Medium	Raspy	0.25–3.0%	
pvp k-90 solution				Medium	Raspy	0.25–3.0%	
pvp k-120				Medium	Raspy	0.25–3.0%	
pvp/va s-630				Medium	Less Raspy than PVP	0.5–6.0%	
pvp/va w-635				Medium	Less Raspy than PVP	0.5–6.0%	Builds initial volume, quick dispersion on hair, less raspy than PVP polymers
styleze cc-10 polymer				Medium	Smooth	0.25–2.0%	Thermal protection, provides cushion, good detangling and strengthens the foam ball (provides shape)
styleze w-17 polymer				Medium	Very Smooth	0.25–2.0%	Thermal protection, provides extra slip, durable, luxurious dense foam

Polymer performance and features may vary depending on use level and interaction with other ingredients in the formula.

Other additives can impact the tack and feel of the mousse formulations

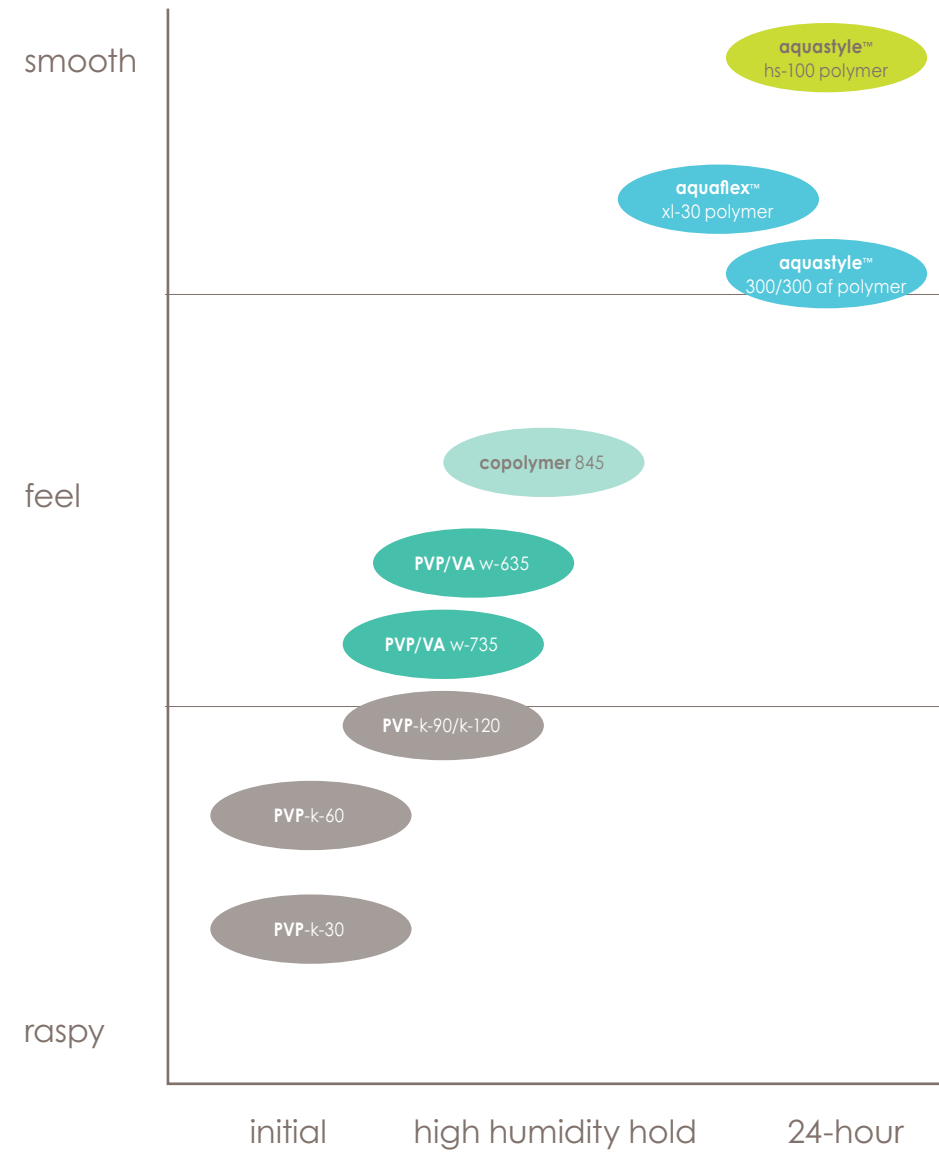
Foam feel can be impacted by the packaging and the foam agent.

# non-aerosol mousses

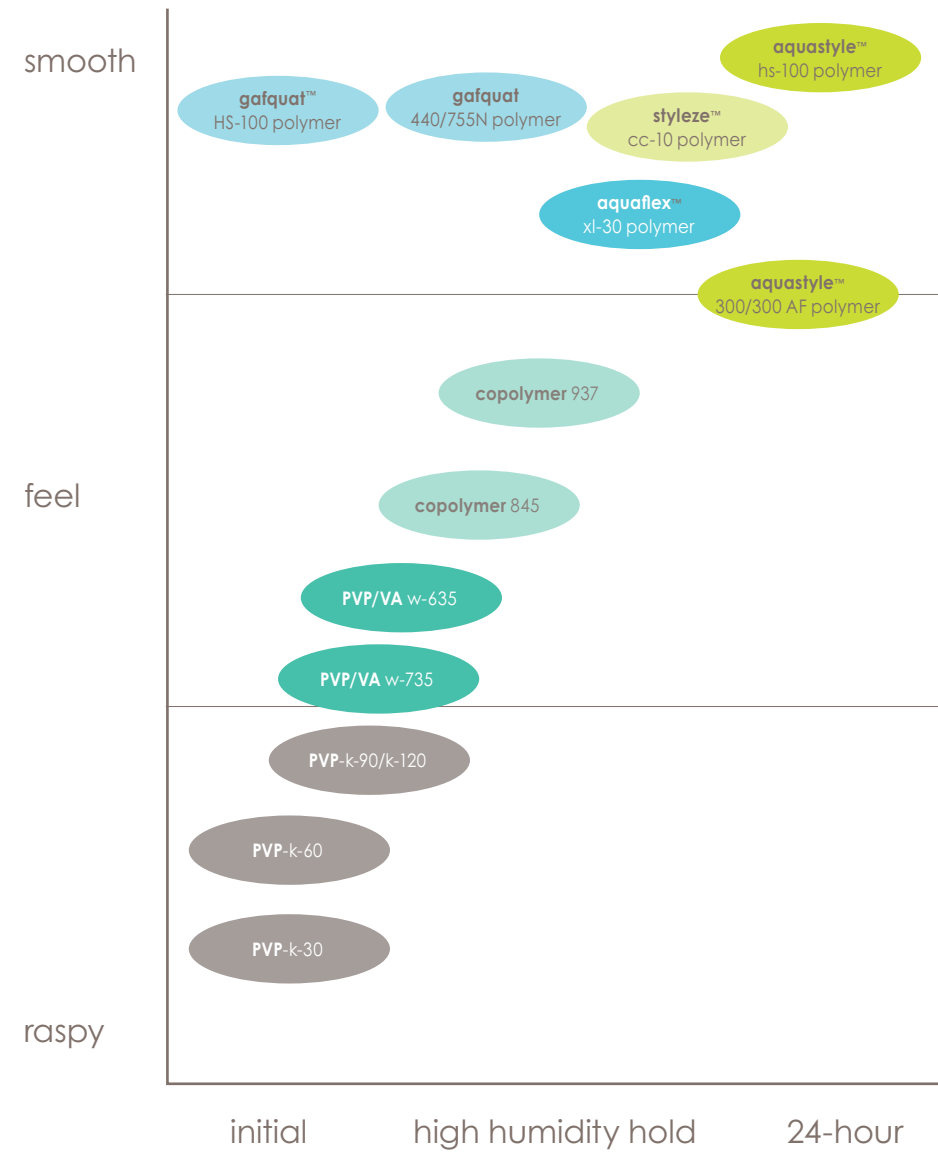
- advantage™ s polymer
- advantage s solution polymer
- advantage 4910 polymer
- aquaflex™ fx-64 polymer
- aquaflex fx-64 re polymer
- aquaflex xl-30 polymer
- aquastyle™ 300 polymer
- aquastyle 300 af polymer
- copolymer 845; 845-o
- copolymer 937
- copolymer 958
- gafquat™ 440 polymer
- gafquat 755n; 755n-o polymer
- pvp k-15
- pvp k-30
- pvp k-30 solution
- pvp k-60
- pvp k-90
- pvp k-90 solution
- pvp k-120
- pvp/va s-630
- pvp/va w-635
- styleze™ cc-10 polymer
- styleze w-17 polymer



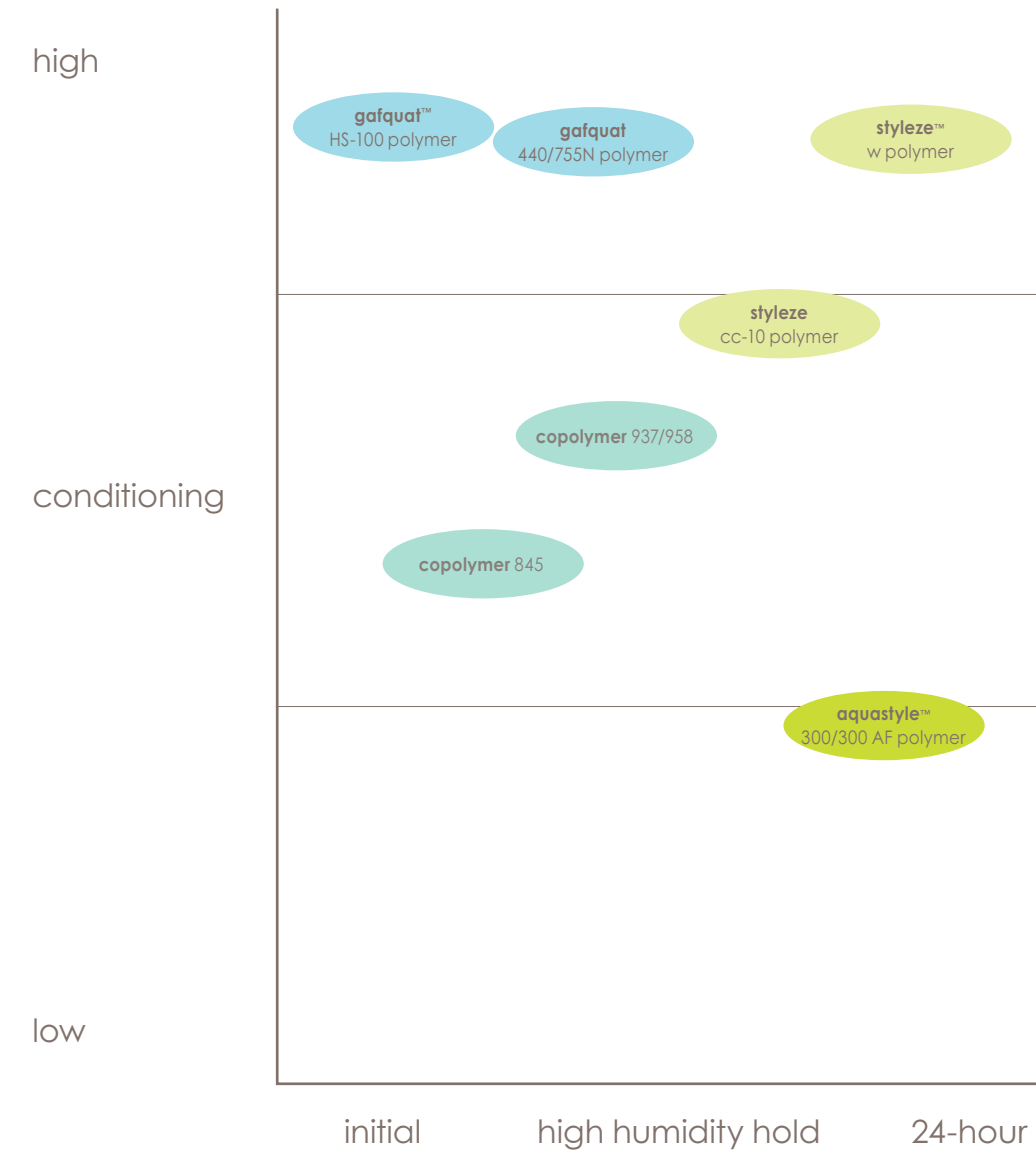
## carbomer-based clear gels



## opaque gels



## conditioning mousses



## hair styling: perception maps

- carbomer-based clear gels
- opaque gels
- conditioning mousses



trade name	INCI name
<b>advantage™</b> lc-a polymer	Vinyl Caprolactam/VP/Dimethylaminoethyl Methacrylate Copolymer
<b>advantage</b> lc-e polymer <sup>1</sup>	Vinyl Caprolactam/VP/Dimethylaminoethyl Methacrylate Copolymer (and) Lauryl Pyrrolidone
<b>advantage</b> s polymer	Vinyl Caprolactam/VP/Dimethylaminoethyl Methacrylate Copolymer
<b>advantage</b> plus polymer	VA/Butyl Maleate/Isobornyl Acrylate Copolymer
<b>advantage</b> 4910 polymer	Octylaurylamide/Acrylates/Butylaminoethyl/Methacrylate Copolymer
<b>aquaflex™</b> fx-64 polymer	Isobutylene/Ethylmaleimide/Hydroxyethylmaleimide Copolymer
<b>aquaflex</b> fx-64 re polymer	Isobutylene/Ethylmaleimide/Hydroxyethylmaleimide Copolymer
<b>aquaflex</b> sf-40 polymer	VP/Vinyl Caprolactam/DMAPA Acrylates Copolymer
<b>aquaflex</b> xl-30 polymer	Polyimide-1
<b>aquastyle™</b> sh-100 polymer	Acrylates Copolymer (and) Water
<b>aquastyle</b> 300 polymer	Polyquaternium-69
<b>aquastyle</b> 300 af polymer	Polyquaternium-69
<b>copolymer</b> 845; 845-o	VP/Dimethylaminoethylmethacrylate Copolymer
<b>copolymer</b> 937	VP/Dimethylaminoethylmethacrylate Copolymer
<b>gafquat™</b> 440 polymer	Polyquaternium-11
<b>gafquat</b> 755n; 755n-o polymer	Polyquaternium-11
<b>gafquat</b> hs-100; hs-100-o polymer	Polyquaternium-28
<b>gantrez™</b> a-425 polymer	Butyl Ester of PVM/MA Copolymer

<sup>1</sup>Available in EU only

trade name	INCI name
<b>gantrez™</b> es-225 polymer	Ethyl Ester of PVM/MA Copolymer
<b>gantrez</b> es-335 polymer	Isopropyl Ester of PVM/MA Copolymer
<b>gantrez</b> es-425 polymer	Butyl Ester of PVM/MA Copolymer
<b>gantrez</b> es-435 polymer	Butyl Ester of PVM/MA Copolymer
<b>gantrez</b> sp-215 polymer	Ethyl Ester of PVM/MA Copolymer
<b>omnirez™</b> 2000 polymer	Ethyl Ester of PVM/MA Copolymer
<b>PVP</b> k-15	PVP
<b>PVP</b> k-30	PVP
<b>PVP</b> k-30 solution	PVP
<b>PVP</b> k-60	PVP
<b>PVP</b> k-90	PVP
<b>PVP</b> k-90 solution	PVP
<b>PVP</b> k-120	PVP
<b>PVP</b> s-630	VP/VA Copolymer
<b>PVP</b> e-335; l-335	VP/VA Copolymer
<b>PVP/VA</b> e-535; l-535	VP/VA Copolymer
<b>PVP/VA</b> e-635; W-635	VP/VA Copolymer
<b>PVP/VA</b> e-735; l-735; W-735	VP/VA Copolymer
<b>Styleze</b> cc-10 polymer	VP/DMAPA Acrylates Copolymer
<b>Styleze™</b> w-17 polymer	Polyquaternium-55

## product range

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+49 (0) 2236 9649 266  
Fax: +49 (0) 2236 9649 295

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Fax: +90 216 538 08 80

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