

Perle

The aroma variety Perle was developed by the Hop Research Center in Hüll. It is a descendant of the English variety Northern Brewer and was approved as an aroma variety in 1978. At present, the second largest cultivation area in Germany is devoted to growing Perle hops. It is quite versatile and can be utilized in a number of different ways in the brewing process. When added at the midpoint of the boil as an aroma addition, it imparts a fine, spicy hop aroma to the beer. In good crop years, the alpha-acid content may be high enough to allow its application for bittering as well.



Mother

Northern Brewer

Father

63/005/027

Perle

Analytical Values

Bitter Substances

α -acid [EBC 7.4]	6.6 % w/w
β -acid [EBC 7.7]	4.8 % w/w
β/α [EBC 7.7]	0.7
Co-Humulone [EBC 7.7]	30 % rel.

Aroma Substances

Total Oil [EBC 7.10]	1.30 ml/100 g
Myrcene [GC-FID]	254 mg/100 g
β -Caryophyllene [GC-FID]	106 mg/100 g
Farnesen [GC-FID]	2 mg/100 g
α -Humulene [GC-FID]	327 mg/100 g
Σ Hydrocarbon fraction [GC-FID]	752 mg/100 g
Linalool [GC-FID]	4 mg/100 g
Geraniol [GC-FID]	2 mg/100 g
Geranyl acetate [GC-FID]	0 mg/100 g
2-methylbutyl 2-methylpropanoate [GC-FID]	23 mg/100 g
Σ Oxygen fraction [GC-FID]	80 mg/100 g
Σ Monoterpene alcohols and esters [GC-FID]	8 mg/100 g
Σ Propanoate [GC-FID]	29 mg/100 g
Σ unsaturated esters [GC-FID]	3 mg/100 g
Σ Esters [GC-FID]	37 mg/100 g
Σ Sesquiterpene alcohols [GC-FID]	13 mg/100 g
Σ Ketone [GC-FID]	17 mg/100 g
Σ Hydrocarbon fraction + Oxygen fraction [GC-FID]	832 mg/100 g

Polyphenols

Polyphenols [EBC 7.14]	4.1 % w/w
Σ Low-molecular polyphenols [EBC 7.7]	7540 mg/l
Xanthohumol [EBC 7.7]	0.55 % w/w

Perle



Usage in Brewing

Often Used

	rarely	medium	frequently
Boil – Beginning			<div></div>
Boil – Midpoint			<div></div>
Boil – End & Whirlpool			<div></div>
Dry Hopping	<div></div>		

Recommended Beer Styles

	rarely	medium	frequently
Lager			<div></div>
Ale		<div></div>	
Heavily dry-hopped beers	<div></div>		
Dark Beer			<div></div>
Wheat Beer			<div></div>
Belgian Origin Styles		<div></div>	

Agronomic Aspects

		low	medium	high		
Climate Tolerance		<div></div>				
		low	medium	good	very good	
Plant Health				<div></div>		
		early	medium early	medium	medium late	late
Maturity					<div></div>	