# **Spalter Select**

Spalter Select was developed by the Hop Research Center in Hüll. It was approved in 1993 as an aroma hop variety. This hop variety exhibits very good plant health with excellent resistance to disease, making it particularly attractive to hop growers. Spalter Select is characterized by its spicy hop aroma and high farnesene content. Within Germany, it is considered a classic lager beer hop. Its aroma consists primarily of spicy hop notes but can also be fruity and floral.





Mother	Father	
76/018/080	71/016/007	
Spalter Select		

## **Analytical Values**

**Bitter Substances** 

α-acid [EBC 7.4]	4.6 % w/w
β-acid [EBC 7.7]	4.6 % w/w
β/α [EBC 7.7]	1.0
Co-Humulone [EBC 7.7]	23 % rel.

#### Aroma Substances

Total Oil [EBC 7.10]	0.70 ml/100 g
Myrcene [GC-FID]	167 mg/100 g
β-Caryophyllene [GC-FID]	22 mg/100 g
Farnesen [GC-FID]	65 mg/100 g
α-Humulene [GC-FID]	56 mg/100 g
∑ Hydrocarbon fraction [GC-FID]	370 mg/100 g
Linalool [GC-FID]	9 mg/100 g
Geraniol [GC-FID]	1 mg/100 g
Geranyl acetate [GC-FID]	0 mg/100 g
2-methylbutyl 2-methylpropanoate [GC-FID]	4 mg/100 g
∑ Oxygen fraction [GC-FID]	63 mg/100 g
$\sum$ Monoterpene alcohols and esters [GC-FID]	11 mg/100 g
∑ Propanoate [GC-FID]	5 mg/100 g
∑ unsaturated esters [GC-FID]	2 mg/100 g
∑ Esters [GC-FID]	8 mg/100 g
∑ Sesquiterpene alcohols [GC-FID]	25 mg/100 g
∑ Ketone [GC-FID]	16 mg/100 g
$\sum$ Hydrocarbon fraction + Oxygen fraction [GC-FID]	433 mg/100 g

#### Polyphenols

Polyphenols [EBC 7.14]	4.9 % w/w
∑ Low-molecular polyphenols [EBC 7.7]	10975 mg/l
Xanthohumol [EBC 7.7]	0.42 % w/w



# **Spalter Select**



## Usage in Brewing

### Often Used

	rarely	medium	frequently
Boil – Beginning			
Boil – Midpoint			
Boil – End & Whirlpool			
Dry Hopping			

### **Recommended Beer Styles**

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

### **Agronomic Aspects**

			low	medium	high
Climate Tolerance					
		low	medium	good	very good
Plant Health					
	early	medium early	medium	medium late	late
Maturity					
			low	medium	high
Storage Stability					

