

## Havregrout

### Selected Style and BJCP Guidelines

13C–Stout–Oatmeal Stout

Minimum OG:	1.048 SG	Maximum OG:	1.065 SG
Minimum FG:	1.010 SG	Maximum FG:	1.018 SG
Minimum IBU:	25 IBU	Maximum IBU:	40 IBU
Minimum Color:	43.3 EBC	Maximum Color:	78.8 EBC

### Recipe Overview

Wort Volume Before Boil:	27.00 l	Wort Volume After Boil:	23.00 l
Volume Transferred:	22.00 l	Water Added To Fermenter:	0.00 l
Volume At Pitching:	22.00 l	Volume Of Finished Beer:	22.00 l
Expected Pre-Boil Gravity:	1.042 SG	Expected OG:	1.050 SG
Expected FG:	1.015 SG	Apparent Attenuation:	69.7 %
Expected ABV:	4.6 %	Expected ABW:	3.6 %
Expected IBU (using Tinseth):	34.0 IBU	Expected Color (using Morey):	73.0 EBC
BU:GU ratio:	0.69	Approx Color:	
Mash Efficiency:	81.0 %		
Boil Duration:	80.0 mins		
Fermentation Temperature:	18 degC		

### Fermentables

Ingredient	Amount	%	MCU	When
UK Pale Ale Malt	2.800 kg	59.6 %	3.0	In Mash/Steeped
UK Rolled Oats	0.500 kg	10.6 %	0.5	In Mash/Steeped
Belgian Caramel Vienna Malt	0.500 kg	10.6 %	3.8	In Mash/Steeped
UK Dark Crystal	0.250 kg	5.3 %	7.0	In Mash/Steeped
UK Roasted Barley	0.200 kg	4.3 %	46.4	In Mash/Steeped
German Carafo Special I	0.200 kg	4.3 %	24.5	In Mash/Steeped
UK Medium Crystal	0.150 kg	3.2 %	3.3	In Mash/Steeped
UK Black Malt	0.100 kg	2.1 %	19.6	In Mash/Steeped

### Hops

Variety	Alpha	Amount	IBU	Form	When
Slovenian Styrian Goldings	4.6 %	40 g	18.4	Bagged Whole Hops	70 Min From End
UK Golding	5.2 %	30 g	15.6	Bagged Whole Hops	70 Min From End

### Other Ingredients

Ingredient	Amount	When
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### Yeast

Wyeast 1099–Whitbread Ale

## Water Profile

Target Profile:	No Water Profile Chosen		
Mash pH:	5.2		
pH Adjusted with:	Unadjusted		

Total Calcium (ppm):	160	Total Magnesium (ppm):	0
Total Sodium (ppm):	55	Total Sulfate (ppm):	0
Total Chloride(ppm):	0	Total Bicarbonate (ppm):	383

## Mash Schedule

Mash Type:	Full Mash
Schedule Name:	Speidel medium

Step Type	Temperature	Duration
Rest at	52 degC	10
Raise by direct heating to	62 degC	5
Rest at	62 degC	20
Raise by direct heating to	67 degC	5
Rest at	67 degC	30
Raise by direct heating to	72 degC	5
Rest at	72 degC	20
Raise by direct heating to	78 degC	5
Rest at	78 degC	15

## Recipe Notes

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