Hazy PA - Hallertau Blanc

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **46**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13 liter(s)**
- Boil time **75 min**
- Evaporation rate **20 %/h**
- Boil size **16.6 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **8.8 liter(s)**
- Total mash volume **11.3 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **8.8 liter(s)** of strike water to **72.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **16.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1 kg *(38.8%)*	80 %	5
Grain	Strzegom Pilzneński	0.5 kg *(19.4%)*	80 %	4
Grain	Wheat Malt, Dark	0.5 kg *(19.4%)*	80 %	18
Grain	Oats, Flaked	0.4 kg *(15.5%)*	80 %	2
Grain	Carahell	0.125 kg *(4.9%)*	77 %	26
Grain	Weyermann - Acidulated Malt	0.05 kg *(1.9%)*	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Summit	10 g	60 min	14.3 %
Boil	Hallertau Blanc	20 g	15 min	9 %
Aroma (end of boil)	Hallertau Blanc	20 g	0 min	9 %
Dry Hop	Hallertau Blanc	60 g	3 day(s)	9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Safale

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	2 g	Mash	60 min
Water Agent	Witamina C	2 g	Bottling	---