

- Gravity **12.9 BLG**
- ABV ---
- IBU **36**
- SRM **5.8**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **17.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **16.2 liter(s)**

Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **50 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **12.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **50 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **22.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Best Pilsen Malt	2.5 kg (61.7%)	80 %	3.5
Grain	Best Wheat Malt	1.3 kg (32.1%)	85 %	4
Grain	Aromatic Malt	0.25 kg (6.2%)	78 %	50

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Spalt Select	20 g	30 min	4.2 %
Aroma (end of boil)	Willamette	50 g	5 min	4.5 %
Aroma (end of boil)	Tomahawk	50 g	5 min	15.5 %
Dry Hop	Citra	30 g	7 day(s)	12.4 %
Whirlpool	Cascade	30 g	0 min	6.8 %
Dry Hop	Jarrylo	30 g	7 day(s)	13.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11.5 g	Safbrew