

- Gravity **13.1 BLG**
- ABV ---
- IBU **24**
- SRM **5.1**
- Style **American Wheat or Rye Beer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **65 min**
- Evaporation rate **12.3 %/h**
- Boil size **28.3 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

### Steps

- Temp **62 C**, Time **15 min**
- Temp **69 C**, Time **45 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **17.3 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **69C**
- Keep mash **15 min** at **78C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2.75 kg (47.8%)	85 %	6
Grain	Crisp - Wheat Malt (EBC 2.5-4.5)	2.75 kg (47.8%)	85 %	4
Grain	weyermann - abbey malt	0.25 kg (4.3%)	75 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Dry Hop	J-Lime	20 g	3 day(s)	6.9 %
Aroma (end of boil)	Citra	25 g	10 min	12.4 %
Aroma (end of boil)	Citra	5 g	45 min	12.4 %
Aroma (end of boil)	Mosaic	30 g	5 min	11.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	1000 ml	Fermentum Mobile

### Extras

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

Type	Name	Amount	Use for	Time
Fining	whirflock	3 g	Boil	5 min

### Notes

- na zimno cascade w szyszce  
*Apr 21, 2017, 7:33 PM*