

1 na 100

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **31**
- SRM **4.2**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **49.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **69 C**, Time **60 min**

Mash step by step

- Heat up **18.6 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **36.9 liter(s)** of **76C** water or to achieve **49.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	5 kg (80.6%)	85 %	8
Grain	Strzegom Bursztynowy	0.2 kg (3.2%)	70 %	49
Grain	Viking Pale Ale malt	1 kg (16.1%)	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mandarina Bavaria	60 g	10 min	10 %
Aroma (end of boil)	Cascade	75 g	1 min	7.1 %
Boil	Chinook	50 g	10 min	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
S33	Ale	Slant	200 ml	---