

AP

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **32**
- SRM **3.8**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **10 min** at **78C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny Viking	2.5 kg (47.2%)	82 %	4
Grain	Pilzneński Soufflet	2.5 kg (47.2%)	81 %	4
Grain	Pszenica niestodowana	0.3 kg (5.7%)	75 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	60 min	10 %
Boil	Chinook	10 g	45 min	10 %
Boil	Chinook	10 g	30 min	10 %
Boil	Cascade	10 g	15 min	6 %
Aroma (end of boil)	Cascade	10 g	0 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Slant	300 ml	Fermentum Mobile