

## rye apa

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **44**
- SRM **3.7**
- Style **American Wheat or Rye Beer**

### Batch size

- Expected quantity of finished beer **25.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **36.1 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **17.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **24.5 liter(s)** of **76C** water or to achieve **36.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Extra Crisp	3 kg (51.7%)	83 %	5
Grain	Żytni Steinbach	2 kg (34.5%)	85 %	5
Grain	Rye, Flaked	0.8 kg (13.8%)	78.3 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	25 g	60 min	12 %
Boil	Chinook	25 g	15 min	12 %
Aroma (end of boil)	Mosaic	50 g	1 min	10 %
chmiel dodany na 0 min ,po minucie chłodzenie do 80*C przerwa 15 min ,dalsze chłodzenie				
Aroma (end of boil)	Galaxy	50 g	1 min	15 %
Aroma (end of boil)	Centennial	50 g	1 min	10.5 %
Dry Hop	Mosaic	50 g	3 day(s)	10 %
Dry Hop	Centennial	50 g	3 day(s)	10.5 %
Dry Hop	Galaxy	50 g	3 day(s)	15 %

### Extras

Type	Name	Amount	Use for	Time
Fining	mech	5 g	Boil	10 min