

## Rye PA

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **26**
- SRM **7.2**
- Style **American Wheat or Rye Beer**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **12 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **8.1 liter(s)**
- Total mash volume **11.2 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **8.1 liter(s)** of strike water to **72.4C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **1 min** at **78C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (64.5%)	81 %	4
Grain	Żytni	1 kg (32.3%)	85 %	8
Grain	Weyermann - Carawheat	0.05 kg (1.6%)	77 %	97
Grain	Special B Malt	0.05 kg (1.6%)	65.2 %	315

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	columbus	10 g	60 min	13.6 %