

Rye Pils

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **39**
- SRM **3.8**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **0 %**
- Size with trub loss **15 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **18 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **13.6 liter(s)**
- Total mash volume **17 liter(s)**

Steps

- Temp **66 C**, Time **90 min**

Mash step by step

- Heat up **13.6 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **90 min** at **66C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **18 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3 kg (88.2%)	82 %	4
Grain	Płatki żytnie	0.4 kg (11.8%)	60 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	15 g	60 min	11.5 %
Boil	Hallertau Mittelfruh	20 g	15 min	3.1 %
Whirlpool	Hallertau Mittelfruh	20 g	30 min	3 %