

Polaris Pilsner

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **31**
- SRM **5.5**
- Style **Classic American Pilsner**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **8 %/h**
- Boil size **30.2 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.9 liter(s)**
- Total mash volume **27.9 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **20 min**

Mash step by step

- Heat up **20.9 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **20 min** at **76C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **30.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting - Pilzneński	4.5 kg (64.5%)	80 %	3
Grain	Vienna - Castle Malting	1.5 kg (21.5%)	85 %	6
Grain	płatki ryżowe	0.23 kg (3.3%)	50 %	2
Grain	Cara Blonde - Castle Malting	0.5 kg (7.2%)	78 %	20
Grain	Simpsons - Caramalt	0.25 kg (3.6%)	76 %	60

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Polaris	15 g	60 min	20.5 %
Whirlpool	Polaris	20 g	5 min	20.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
California Lager M54	Lager	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Fining	protafloc	1 g	Boil	15 min