

Polish Pale Ale

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **26**
- SRM **5.3**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **35.6 liter(s)**

Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.8 liter(s)**
- Total mash volume **27.8 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **20.8 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **21.8 liter(s)** of **76C** water or to achieve **35.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	3.6 kg (51.8%)	80.5 %	4
Grain	BESTMALZ - Best Minich	2.5 kg (36%)	80.5 %	16
Grain	Weyermann - Carapils	0.5 kg (7.2%)	78 %	4
Grain	BESTMALZ - Best Wheat Malt	0.35 kg (5%)	82 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	50 min	11 %
Boil	Marynka	15 g	10 min	10 %
Boil	Zula	30 g	5 min	8.3 %
Whirlpool	Zula	30 g	15 min	8.3 %
Whirlpool	Marynka	30 g	15 min	10 %
Dry Hop	Zula	80 g	5 day(s)	8.3 %
Dry Hop	Marynka	40 g	5 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	25 g	Fermentis