

PALE ALE

- Gravity **12.1 BLG**
- ABV ---
- IBU **53**
- SRM **4.9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.3 liter(s)**
- Total mash volume **17.8 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **68 C**, Time **80 min**
- Temp **75 C**, Time **5 min**

Mash step by step

- Heat up **13.3 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **80 min** at **68C**
- Keep mash **5 min** at **75C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.1 kg (92.1%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.35 kg (7.9%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	60 min	10 %
Boil	Lublin (Lubelski)	40 g	5 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar