

PALE ALE NUMER DWA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **38**
- SRM **18.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **25.5 liter(s)**

Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (49%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.5 kg (9.8%)	75 %	30
Grain	Carahell	0.5 kg (9.8%)	77 %	26
Grain	Fawcett - Crystal Red	0.4 kg (7.8%)	71 %	400
Grain	Caraaroma	0.2 kg (3.9%)	78 %	400
Grain	Strzegom Pilzniejszy	1 kg (19.6%)	80 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Aroma (end of boil)	Tettnang	30 g	15 min	4 %
Dry Hop	Hallertau	30 g	7 day(s)	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	15 min