

Początek Wiosny

- Gravity **12.9 BLG**
- ABV ---
- IBU **63**
- SRM **6.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.8 liter(s)**
- Total mash volume **17 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **12.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (94.1%)	82 %	4
Grain	Strzegom Karmel 150	0.25 kg (5.9%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	25 g	30 min	9.5 %
Boil	Amarillo	25 g	5 min	9.5 %
Dry Hop	Citra	50 g	7 day(s)	12 %
Boil	Amarillo	25 g	10 min	9.5 %
First Wort	Amarillo	25 g	60 min	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
US West Coast	Ale	Dry	10 g	Gozdawa