

Zimowo-wiosenne

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **16**
- SRM **4.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **76C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (83.3%)	80 %	5
Grain	Strzegom Pilzniejszy	1 kg (16.7%)	80 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	11.6 %
Whirlpool	Amarillo	15 g	10 min	6.3 %
Whirlpool	Cascade	10 g	10 min	6.7 %
Whirlpool	Citra	10 g	10 min	12 %
Dry Hop	Amarillo	15 g	4 day(s)	6.3 %
Dry Hop	Citra	10 g	4 day(s)	12 %
Dry Hop	Cascade	10 g	4 day(s)	6.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	12.5 g	---

Extras

Type	Name	Amount	Use for	Time
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Fining	Mech irlandzki	5 g	Boil	15 min
Water Agent	Gips piwowarski	4 g	Mash	60 min