

SpontanALE

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **34**
- SRM **5.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **7 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **72C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **10 min** at **72C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **25 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (70%)	80 %	5
Grain	Pszeniczny	1 kg (20%)	85 %	4
Grain	Castle Cara Ruby	0.5 kg (10%)	78 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	60 min	13 %
Boil	Chinook	10 g	20 min	13 %
Boil	Marynka	50 g	5 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgórza	Ale	Liquid	100 ml	Fermentum Mobile