

aaa

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **31**
- SRM **7.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **32.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **75C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **32.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (76.9%)	80 %	5
Grain	Strzegom Pilzneński	1 kg (15.4%)	80 %	4
Grain	Karmelowy Pszeniczny Strzegom	0.5 kg (7.7%)	79 %	130

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	15 g	60 min	12 %
Boil	Citra	30 g	5 min	12 %
Boil	Centennial	30 g	10 min	10.5 %