

na koniec 2

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **85**
- SRM **9.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.3 liter(s)**
- Total mash volume **12.4 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **9.3 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **1 min** at **78C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.8 kg (58.1%)	80 %	5
Grain	Pilzneński	1 kg (32.3%)	81 %	4
Grain	Weyermann Caramunich 3	0.3 kg (9.7%)	76 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	30 g	15 min	10 %
Boil	Simcoe	30 g	15 min	13.2 %
Whirlpool	Mosaic	20 g	15 min	10 %
Whirlpool	Simcoe	20 g	15 min	13.2 %
Dry Hop	Mosaic	10 g	5 day(s)	10 %
Dry Hop	Simcoe	10 g	5 day(s)	13.2 %