

Se ipka

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **33**
- SRM **4.2**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **52 C**, Time **5 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **19.9 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.7 kg (62.7%)	81 %	4
Grain	Płatki owsiane	0.4 kg (6.8%)	60 %	3
Grain	Carahell	0.1 kg (1.7%)	77 %	26
Grain	Pszeniczny	1.2 kg (20.3%)	85 %	4
Grain	Simpsons - Golden Naked Oats	0.5 kg (8.5%)	73 %	20

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	10 min	12 %
Boil	Centennial	10 g	10 min	10.5 %
Boil	Chinook	15 g	10 min	13 %
Whirlpool	Citra chinook cenntennial	145 g	1 min	1 %
Boil	Marynka	25 g	60 min	8 %