

Ameryka

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **45**
- SRM **6.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2.7 kg (45%)	85 %	7
Grain	Pszeniczny	1 kg (16.7%)	85 %	4
Grain	Monachijski	1.8 kg (30%)	80 %	16
Grain	Carabelge	0.5 kg (8.3%)	80 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	tomahawk	20 g	60 min	14.3 %
Boil	Centennial	15 g	15 min	9.7 %
Boil	Citra	15 g	15 min	13.3 %
Dry Hop	Centennial	10 g	7 day(s)	9.7 %
Dry Hop	Citra	10 g	7 day(s)	13.3 %
Boil	Chinook	10 g	25 min	11.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

FM52 Amerykański Sen	Ale	Liquid	100 ml	Fermentum Mobile
----------------------	-----	--------	--------	------------------