

Pi

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **39**
- SRM **5.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23.8 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **17.9 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (84%)	79 %	6
Grain	Bestmalz Carmel Pils	0.5 kg (8.4%)	75 %	26
Grain	Słód pszeniczny Bestmalz	0.2 kg (3.4%)	82 %	5
Grain	Płatki owsiane	0.25 kg (4.2%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	20 g	30 min	13.5 %
Boil	Cascade	20 g	30 min	7 %
Boil	Cascade	10 g	15 min	7 %
Boil	Citra	10 g	15 min	13.5 %
Boil	Cascade	20 g	0 min	7 %
Aroma (end of boil)	Citra	20 g	0 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Fermentis US-05	Ale	Dry	10 g	---