

Ulotne Stany

- Gravity **15.9 BLG**
- ABV ---
- IBU **109**
- SRM **16.1**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **15 %**
- Size with trub loss **17.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **2.77 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **76.6C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4.8 kg (88.9%)	79 %	6
Grain	crystal	0.4 kg (7.4%)	78 %	150
Grain	Aroma CastleMalting	0.2 kg (3.7%)	78 %	100

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Bravo	40 g	60 min	15.5 %
Boil	Cascade	20 g	15 min	6 %
Boil	Citra	25 g	10 min	12 %
Boil	Cascade	25 g	5 min	6 %
Boil	Citra	25 g	3 min	12 %
Dry Hop	Citra	15 g	7 day(s)	12 %
Dry Hop	Cascade	15 g	7 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	11 g	Mangrove Jack's