

Imperialność

- Gravity **17.1 BLG**
- ABV ---
- IBU **90**
- SRM **7**
- Style **Imperial IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **45 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **45 min** at **72C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (71.4%)	80 %	5
Grain	Karmelowy Jasny 30EBC	1 kg (14.3%)	75 %	30
Grain	Pilzneński	1 kg (14.3%)	81 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	14.5 %
Boil	Columbus/Tomahawk/Zeus	30 g	30 min	14.5 %
Boil	Simcoe	20 g	15 min	13.2 %
Aroma (end of boil)	Marynka	35 g	5 min	10 %
Whirlpool	Simcoe	20 g	0 min	13.2 %
Dry Hop	Simcoe	60 g	5 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis