

IMPERATOR

- Gravity **26.4 BLG**
- ABV ---
- IBU **38**
- SRM **37.6**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **16.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.9 liter(s)**
- Total mash volume **27.9 liter(s)**

Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **20.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **60 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **2.7 liter(s)** of **76C** water or to achieve **16.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.3 kg (47.3%)	81 %	4
Grain	Barley, Flaked	0.7 kg (10%)	70 %	4
Grain	Żytni	1 kg (14.3%)	85 %	8
Grain	Strzegom Monachijski typ II	0.75 kg (10.7%)	79 %	22
Grain	Caramunich® typ III	0.3 kg (4.3%)	73 %	80
Grain	Cara Gold	0.3 kg (4.3%)	75 %	120
Grain	Fawcett - Dark Crystal	0.3 kg (4.3%)	71 %	300
Grain	Weyermann - Dehusked Carafa III	0.26 kg (3.7%)	70 %	1024
Grain	Fawcett - Pale Chocolate	0.07 kg (1%)	71 %	600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	4 g	90 min	11 %
Boil	lunga	15 g	80 min	11 %
Boil	lunga	15 g	45 min	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Bavarian Lager	Lager	Liquid	260 ml	Wyeast Labs