

Bragotto

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **31**
- SRM **6.5**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6 liter(s)**
- Total mash volume **8 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **73 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **20 min** at **73C**
- Keep mash **1 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Liquid Extract	miód lipoowy	1 kg (33.3%)	70 %	35
Grain	Pilznieński	1.5 kg (50%)	81 %	4
Grain	Płatki owsiane	0.5 kg (16.7%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	10 %
Boil	Simcoe	10 g	10 min	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	110 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Spice	cynamon	4 g	Boil	10 min