

Bal u Senatora

- Gravity **16.6 BLG**
- ABV ---
- IBU **68**
- SRM **13.3**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **32.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **28.6 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **21.5 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **32.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5.4 kg (75.5%)	80 %	6
Grain	Strzegom Wiedeński	0.7 kg (9.8%)	79 %	10
Grain	Monachijski	0.5 kg (7%)	80 %	16
Grain	Pszeniczny	0.3 kg (4.2%)	85 %	4
Grain	Strzegom Karmel 300	0.1 kg (1.4%)	70 %	250
Grain	Caraaroma	0.15 kg (2.1%)	78 %	350

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	30 g	60 min	12 %
Boil	Cascade	20 g	30 min	6 %
Boil	Galaxy	20 g	10 min	15 %
Boil	citra	20 g	5 min	12 %
Boil	Cascade	20 g	5 min	6 %
Boil	Citra	20 g	30 min	12 %
Dry Hop	Citra	40 g	4 day(s)	12 %

Dry Hop	Galaxy	30 g	4 day(s)	15 %
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Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	200 ml	Fermentum Mobile