

## spontan

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- Gravity **13.1 BLG**
- ABV ---
- IBU **23**
- SRM **11.2**
- Style **American Amber Ale**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.6 liter(s)**
- Total mash volume **10.2 liter(s)**

### Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **7.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **40 min** at **72C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	0.9 kg (33.5%)	80 %	16
Grain	Strzegom Pilzneński	1.5 kg (55.8%)	80 %	4
Grain	Strzegom Karmel 300	0.12 kg (4.5%)	70 %	299
Grain	Strzegom Karmel 600	0.02 kg (0.7%)	68 %	601
Sugar	cukier	0.15 kg (5.6%)	--- %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Pioneer	5 g	60 min	9.5 %
Boil	Citra	5 g	5 min	13.5 %
Boil	Simcoe	5 g	30 min	13.2 %
Dry Hop	Pioneer	25 g	7 day(s)	9.5 %
Dry Hop	Simcoe	45 g	7 day(s)	13.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Dry	5 g	---