

## Hop Session vol.2

---

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **37**
- SRM **4.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **20.7 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (87%)	79 %	6
Grain	Karmelowy Jasny 30EBC	0.25 kg (5.4%)	75 %	30
Grain	Płatki owsiane	0.35 kg (7.6%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	15 g	60 min	10.5 %
Boil	Cascade	30 g	20 min	6 %
Aroma (end of boil)	Cascade	30 g	10 min	6 %
Whirlpool	Mosaic	60 g	0 min	10 %
Dry Hop	Mosaic	40 g	4 day(s)	10 %
Dry Hop	Cascade	40 g	4 day(s)	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's