

APA 1.0

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **33**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **20.7 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **1 min** at **78C**
- Sparge using **24.2 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) Bel	6 kg (87%)	80 %	6
Grain	Pszeniczny	0.4 kg (5.8%)	85 %	4
Grain	Strzegom Pilzneński	0.5 kg (7.2%)	80 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	20 g	30 min	12 %
Boil	Mosaic	15 g	15 min	12 %
Aroma (end of boil)	Mosaic	15 g	15 min	12 %
Chmiel dodać po wyłączeniu palnika.				
Whirlpool	Citra	20 g	15 min	13.5 %
Chmiel dodać przy temperaturze 90 stopni. Estymacja izomeryzacji wciąż na poziomie 5-15%.				
Whirlpool	Citra	30 g	0 min	13.5 %
Chmiel dodać przy temperaturze 80 stopni. Do końca chłodzenia. Około 20 minut.				
Dry Hop	Citra	50 g	3 day(s)	13.5 %
Dry Hop	Mosaic	100 g	3 day(s)	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's
FM54 Gorączka kalifornijska	Ale	Liquid	30 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	5 g	Boil	15 min