

ColoradoApa

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **27**
- SRM **11.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **14.4 liter(s)**

Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.3 liter(s)**
- Total mash volume **11 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **8.3 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **8.9 liter(s)** of **76C** water or to achieve **14.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	colorado pale base	2 kg (39.6%)	79 %	10
Grain	colorado crystal	0.2 kg (4%)	75 %	20
Grain	Oats, Flaked	0.2 kg (4%)	80 %	2
Grain	Barley, Flaked	0.2 kg (4%)	70 %	4
Grain	Rice, Flaked	0.15 kg (3%)	70 %	2
Liquid Extract	brzeczka po bocku	2.3 kg (45.5%)	15 %	20

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Horizon	5 g	50 min	14 %
Boil	Horizon	15 g	10 min	14 %
Boil	Summit	10 g	1 min	17 %
Dry Hop	Horizon	10 g	3 day(s)	14 %
Dry Hop	Summit	20 g	3 day(s)	17 %
Dry Hop	Nugget	30 g	3 day(s)	13 %