#020 Sour APA

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **42**
- SRM **3.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **14.5 %/h**
- Boil size **15.9 liter(s)**

Mash information

- Mash efficiency **86 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6 liter(s)**
- Total mash volume **8 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **15.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	1.6 kg *(80%)*	85 %	7
Grain	Płatki ryżowe	0.3 kg *(15%)*	85 %	0.7
Grain	Weyermann - Carapils	0.1 kg *(5%)*	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	60 min	12 %
Aroma (end of boil)	Amarillo	10 g	5 min	9.5 %
Aroma (end of boil)	Mosaic	20 g	5 min	10 %
Whirlpool	Amarillo	10 g	10 min	9.5 %
Whirlpool	Mosaic	10 g	10 min	10 %
Dry Hop	Citra	15 g	3 day(s)	12 %
Dry Hop	Amarillo	30 g	3 day(s)	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	Fermentis

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Extras

Type	Name	Amount	Use for	Time
Fining	whirfloc t	1.25 g	Boil	15 min