

Smooth APA

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **49**
- SRM **5.5**
- 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 **65 min**
- Evaporation rate **15 %/h**
- Boil size **27.9 liter(s)**

Mash information

- Mash efficiency **58 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **28.4 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **21.3 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **27.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.13 kg (30%)	81 %	4
Grain	Weyermann - Vienna Malt	1.77 kg (25%)	81 %	8
Grain	Weyermann - Pale Wheat Malt	1.42 kg (20%)	85 %	5
Grain	Żytni	1.06 kg (15%)	85 %	8
Grain	Płatki pszeniczne	0.71 kg (10%)	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	50 g	60 min	8.3 %
Boil	Zula	20 g	10 min	8.3 %
Dry Hop	Zula	60 g	3 day(s)	8.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	10.5 g	---