

letnie APA

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **20**
- SRM **8.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.7 liter(s)**
- Total mash volume **24.1 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.7 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2.5 kg (46.7%)	80 %	6
Grain	Strzegom Pilzneński	1.5 kg (28%)	80 %	4
Grain	Pszeniczny	0.5 kg (9.3%)	85 %	4
Grain	Cara Ruby Castle	0.4 kg (7.5%)	72 %	49
Grain	Karmelowy Jasny 30EBC	0.2 kg (3.7%)	75 %	30
Grain	Słód Caramunich Typ II Weyermann	0.25 kg (4.7%)	73 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	12 g	60 min	11 %
Boil	Marynka	5 g	60 min	10 %
Aroma (end of boil)	monroe	40 g	1 min	2.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale