

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 | --- |