

APA Grażyny

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **15**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **22.9 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **17.4 liter(s)** of strike water to **74.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 4.5 kg (82.6%) | 79 % | 6 |
| Grain | Żytni | 0.45 kg (8.3%) | 85 % | 8 |
| Grain | Płatki owsiane | 0.5 kg (9.2%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil | Marynka | 5 g | 60 min | 10 % |
| Boil | Simcoe | 15 g | 15 min | 13.2 % |
| Whirlpool | Citra | 25 g | --- | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |