

Prosty ale

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **28**
- SRM **4.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **19.4 liter(s)**

Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **14.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Pilzneński | 4.5 kg (92.8%) | 81 % | 4 |
| Grain | Pszeniczny | 0.2 kg (4.1%) | 85 % | 4 |
| Grain | Strzegom Karmel 30 | 0.15 kg (3.1%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|---------|------------|
| Boil | Chinook | 10 g | 120 min | 13 % |
| Boil | Chinook pl | 10 g | 30 min | 10 % |
| Aroma (end of boil) | Chinook pl | 15 g | 5 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|--------------|--------|---------|--------|
| Water Agent | Kwas mlekowy | 3 g | Mash | 50 min |