

APA domowe chmiele 23L

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **41**
- SRM **4.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **28.8 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **18.3 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------------|-----------------|-------|-----|
| Grain | Weyermann - Bohemian Pilsner Malt | 4.54 kg (86.3%) | 81 % | 4 |
| Grain | Strzegom Karmel 150 | 0.12 kg (2.3%) | 75 % | 150 |
| Grain | Pszenica niestodowana | 0.6 kg (11.4%) | 75 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|---------|--------|------------|
| Boil | Magnum | 18.16 g | 60 min | 13.5 % |
| Boil | Magnum | 18.16 g | 30 min | 13.5 % |
| Aroma (end of boil) | Sybilla | 18.16 g | 5 min | 3.5 % |
| Aroma (end of boil) | Sybilla | 18.16 g | 0 min | 3.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------|------|--------|------------|------------------|
| FM51 Grodzie Dębowe | Ale | Liquid | 1513.16 ml | Fermentum Mobile |