

Black_IPA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **25**
- SRM **28.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **7 %**
- Size with trub loss **22.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **17.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **25 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|-------|------|
| Grain | Weyermann - Pale Ale Malt | 4.5 kg (75.6%) | 85 % | 7 |
| Grain | Jęczmień niesłodowany (płatki) | 0.5 kg (8.4%) | 72 % | 2 |
| Grain | Strzegom Monachijski typ II | 0.45 kg (7.6%) | 79 % | 22 |
| Grain | Black (Patent) Malt | 0.3 kg (5%) | 55 % | 1200 |
| Grain | Weyermann - Chocolate Wheat | 0.2 kg (3.4%) | 74 % | 800 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | Cashmere | 30 g | 20 min | 6.7 % |
| Boil | Cashmere | 30 g | 15 min | 6.7 % |
| Aroma (end of boil) | Cashmere | 20 g | 5 min | 6.7 % |
| Dry Hop | Cashmere | 25 g | 5 day(s) | 6.7 % |
| Dry Hop | Cashmere | 25 g | 4 day(s) | 6.7 % |

Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| Name | Type | Form | Amount | Laboratory |
|----------------------|-------------|-------------|---------------|-------------------|
| FM52 Amerykański Sen | Ale | Liquid | 50 ml | Fermentum Mobile |