

Black IPA

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **65**
- SRM **28.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **4 %**
- Size with trub loss **25.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.8 liter(s) / kg**
- Mash size **22.6 liter(s)**
- Total mash volume **28.6 liter(s)**

Steps

- Temp **66 C**, Time **90 min**

Mash step by step

- Heat up **22.6 liter(s)** of strike water to **72.1C**
- Add grains
- Keep mash **90 min** at **66C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **30.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|------|
| Grain | Pilzneński | 5 kg (80%) | 81 % | 4 |
| Grain | Strzegom Karmel 150 | 0.15 kg (2.4%) | 75 % | 150 |
| Grain | Carafa II specjal | 0.5 kg (8%) | 65 % | 1200 |
| Grain | Biscuit Malt | 0.3 kg (4.8%) | 79 % | 45 |
| Sugar | Brown Sugar, Light | 0.3 kg (4.8%) | 100 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Marynka | 60 g | 60 min | 8.8 % |
| Boil | Cascade | 25 g | 45 min | 6.7 % |
| Boil | Fuggles | 25 g | 15 min | 6.1 % |
| Boil | Cascade | 25 g | 0 min | 6.7 % |
| Dry Hop | Cascade | 50 g | 4 day(s) | 6.7 % |
| Dry Hop | Fuggles | 25 g | 4 day(s) | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 200 ml | Fermentum Mobile |