

Black IPA

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **43**
- SRM **21**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|--------|-----|
| Grain | Strzegom Pale Ale | 5 kg (84.7%) | 79 % | 6 |
| Grain | Weyermann - Carafa I | 0.25 kg (4.2%) | 70 % | 690 |
| Grain | Strzegom Czekoladowy jasny | 0.25 kg (4.2%) | 68 % | 400 |
| Grain | Karmelowy żytni Strzegom | 0.25 kg (4.2%) | 75 % | 150 |
| Grain | Fawcett - Pale Crystal | 0.15 kg (2.5%) | 72.8 % | 90 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------|--------|----------|------------|
| Boil | Equanot | 30 g | 15 min | 13.1 % |
| Boil | Centennial | 30 g | 15 min | 10.5 % |
| Whirlpool | Simcoe | 70 g | 5 min | 13.2 % |
| Dry Hop | Mosaic | 50 g | 5 day(s) | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|--------------|-----|-----|--------|-----------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |
|--------------|-----|-----|--------|-----------|