

Black IPA

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **49**
- SRM **29.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.4 liter(s)**
- Total mash volume **31.2 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|----------------|-------|------|
| Grain | Weyermann - Pale Ale Malt | 4 kg (51.3%) | 85 % | 7 |
| Grain | Pszeniczny- Viking Malt | 1 kg (12.8%) | 85 % | 4 |
| Grain | Monachijski Jasny - Viking Malt | 1 kg (12.8%) | 80 % | 16 |
| Grain | Wiedeński - Viking Malt | 1 kg (12.8%) | 79 % | 10 |
| Grain | Carafa (R) III - Weyermann | 0.25 kg (3.2%) | --- % | 1350 |
| Grain | Karmelowy - - Viking Malt | 0.25 kg (3.2%) | 79 % | 600 |
| Grain | Płatki owsiane | 0.2 kg (2.6%) | 85 % | 3 |
| Grain | Jęczmień prażony | 0.1 kg (1.3%) | 55 % | 900 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------|--------|----------|------------|
| Boil | Agnus Cz | 15 g | 50 min | 10.47 % |
| Boil | Agnus Cz | 15 g | 30 min | 10.47 % |
| Boil | Citra USA | 30 g | 10 min | 13.5 % |
| Boil | Cascade PL | 30 g | 10 min | 5.5 % |
| Whirlpool | Citra USA | 30 g | 15 min | 13.5 % |
| Whirlpool | Cascade PL | 30 g | 15 min | 5.5 % |
| Dry Hop | Citra USA | 20 g | 4 day(s) | 13.5 % |
| Dry Hop | Chinook PL | 50 g | 4 day(s) | 5.2 % |
| Dry Hop | Agnus Cz | 8 g | 4 day(s) | 10.47 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|-------------|-------------|---------------|-------------------|
| FM13 Irlandzkie Ciemności | Ale | Slant | 270 ml | Fermentum Mobile |
| Starter na mieszadle 24 h | | | | |