

Black Hole IPA

- Gravity **16.2 BLG**
- ABV ---
- IBU **81**
- SRM **40**
- Style **Black IPA**

Batch size

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

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio --- **liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **75.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **-10 liter(s)** of **76C** water

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|--------|-------|------|
| Grain | Pale Ale | 5 kg | 80 % | 6 |
| Grain | Pszeniczny | 0.5 kg | 85 % | 4 |
| Grain | Carafa Special II | 0.2 kg | 55 % | 1100 |
| Grain | Czekoladowy ciemny | 0.3 kg | 55 % | 1100 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | Tomahawk | 30 g | 60 min | 15.5 % |
| Boil | Magnum | 25 g | 60 min | 12 % |
| Boil | lunga | 15 g | 30 min | 11 % |
| Aroma (end of boil) | Citra | 10 g | 0 min | 12 % |
| Dry Hop | Simcoe | 25 g | 4 day(s) | 13 % |
| Dry Hop | Citra | 40 g | 4 day(s) | 12 % |
| Dry Hop | Cascade | 20 g | 4 day(s) | 6 % |
| Dry Hop | Mosaic | 50 g | 4 day(s) | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|------------|
| US-05 | Ale | Slant | 100 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------|--------|---------|------|
| Water Agent | Gips | 15 g | Mash | --- |