

Black IPA

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **78**
- SRM **30.9**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.3 liter(s)**
- Total mash volume **29.8 liter(s)**

Steps

- Temp **66 C**, Time **75 min**
- Temp **75 C**, Time **15 min**

Mash step by step

- Heat up **22.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **15 min** at **75C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|-----------------|-------|------|
| Grain | Strzegom Pilzneński | 5.85 kg (78.5%) | 80 % | 4 |
| Grain | Caramel/Crystal Malt - 10L | 0.5 kg (6.7%) | 75 % | 22 |
| Grain | Weyermann - Carared | 0.25 kg (3.4%) | 75 % | 45 |
| Grain | Weyermann - Carapils | 0.25 kg (3.4%) | 78 % | 4 |
| Grain | Weyermann - Carafa II | 0.6 kg (8.1%) | 70 % | 1100 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Warrior | 30 g | 50 min | 15.1 % |
| Boil | Warrior | 15 g | 45 min | 15.1 % |
| Boil | Centennial | 15 g | 30 min | 9.7 % |
| Boil | Cascade | 15 g | 30 min | 6 % |
| Boil | Centennial | 15 g | 10 min | 9.7 % |
| Boil | Cascade | 15 g | 10 min | 6 % |
| Boil | Centennial | 10 g | 5 min | 9.7 % |
| Boil | Cascade | 10 g | 5 min | 6 % |

| | | | | |
|---------------------|------------|------|----------|--------|
| Aroma (end of boil) | Centennial | 10 g | 0 min | 9.7 % |
| Aroma (end of boil) | Cascade | 10 g | 0 min | 6 % |
| Whirlpool | Centennial | 10 g | 0 min | 9.7 % |
| Whirlpool | Cascade | 10 g | 0 min | 6 % |
| Whirlpool | Citra | 30 g | 0 min | 13.8 % |
| Dry Hop | Centennial | 30 g | 4 day(s) | 9.7 % |
| Dry Hop | Cascade | 30 g | 4 day(s) | 6 % |
| Dry Hop | Citra | 60 g | 4 day(s) | 13.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------|--------|---------|--------|
| Fining | Whirlfloc T | 1.25 g | Boil | 15 min |