

Black ipa

- Gravity **16.4 BLG**
- ABV ---
- IBU **88**
- SRM **32.8**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|---------------|-------|-----|
| Grain | Pilzneński | 5 kg (83.3%) | 81 % | 4 |
| Grain | Carahell | 0.4 kg (6.7%) | 77 % | 26 |
| Grain | Weyermann - Carafa II | 0.4 kg (6.7%) | 70 % | 837 |
| Grain | Biscuit Malt | 0.2 kg (3.3%) | 79 % | 45 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Bravo | 20 g | 60 min | 15.5 % |
| Boil | Dr Rudi | 20 g | 60 min | 11.8 % |
| Boil | Dr Rudi | 30 g | 30 min | 11.8 % |
| Boil | Cascade | 10 g | 10 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 11 g | Safale |