

Black AIPA 16* (TB.PL)

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **65**
- SRM **30.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **17.6 liter(s)**
- Total mash volume **23.1 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **67 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.6 liter(s)** of strike water to **74.3C**
- Add grains
- Keep mash **15 min** at **67C**
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Castle Pale Ale | 4.6 kg (83.6%) | 80 % | 8 |
| Grain | Strzegom Czekoladowy 400 | 0.4 kg (7.3%) | 68 % | 400 |
| Grain | Chocolate Malt (US) | 0.3 kg (5.5%) | 60 % | 690 |
| Grain | Black (Patent) Malt | 0.2 kg (3.6%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Bravo | 25 g | 60 min | 15.5 % |
| Boil | Dr Rudi | 25 g | 20 min | 11.8 % |
| Boil | Cascade | 15 g | 15 min | 6 % |
| Boil | Cascade | 15 g | 5 min | 6 % |
| Boil | Cascade | 20 g | 1 min | 6 % |
| Dry Hop | Cascade | 30 g | 7 day(s) | 6 % |

Yeasts

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