

Black IPA Single HOP Amarillo ver. 1

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **60**
- SRM **36.4**
- Style **American 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 **20.9 liter(s)**
- Total mash volume **27.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**

Mash step by step

- Heat up **20.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|------|
| Grain | Pilzneński | 4.5 kg (64.7%) | 81 % | 4 |
| Grain | Strzegom Monachijski typ I | 0.45 kg (6.5%) | 79 % | 16 |
| Grain | Żytni | 0.45 kg (6.5%) | 85 % | 8 |
| Grain | Karmelowy żytni Strzegom | 0.45 kg (6.5%) | 75 % | 150 |
| Grain | Carafa III | 0.45 kg (6.5%) | 70 % | 1034 |
| Grain | Płatki owsiane | 0.45 kg (6.5%) | 85 % | 3 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.2 kg (2.9%) | 73 % | 1001 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|----------|--------|----------|------------|
| First Wort | Amarillo | 15 g | 60 min | 8.9 % |
| Boil | Amarillo | 45 g | 30 min | 8.9 % |
| Boil | Amarillo | 45 g | 15 min | 8.9 % |
| Whirlpool | Amarillo | 45 g | 0 min | 8.9 % |
| Dry Hop | Amarillo | 45 g | 4 day(s) | 8.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------|-------------|-------------|---------------|-------------------|
| FM52 Amerykański Sen | Ale | Liquid | 1000 ml | Fermentum Mobile |
| starter 1000 ml dekantowany | | | | |