

black mamma

- Gravity **16.5 BLG**
- ABV ---
- IBU **78**
- SRM **40**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.3 liter(s)**
- Total mash volume **12.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **9.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|------|
| Grain | Strzegom Pale Ale | 1.5 kg (48.4%) | 79 % | 6 |
| Grain | Caramunich Malt | 0.2 kg (6.5%) | 71.7 % | 110 |
| Grain | Strzegom Monachijski typ II | 1 kg (32.3%) | 79 % | 22 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (6.5%) | 68 % | 1200 |
| Grain | Strzegom Barwiący | 0.2 kg (6.5%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------|--------|-----------|------------|
| Boil | Mosaic | 30 g | 50 min | 10 % |
| Aroma (end of boil) | Sorachi Ace | 30 g | 10 min | 10 % |
| Dry Hop | citra | 30 g | 14 day(s) | 13.5 % |

Yeasts

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