

10. BIPA

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **59**
- SRM **27.1**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **4 %**
- Size with trub loss **20.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **23.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **25.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **20.1 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **23.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Strzegom Pale Ale | 4.55 kg (79.4%) | 79 % | 6 |
| Grain | Strzegom Karmel 150 | 0.26 kg (4.5%) | 75 % | 150 |
| Grain | Strzegom Karmel 30 | 0.37 kg (6.5%) | 75 % | 30 |
| Grain | Weyermann - Carafa I | 0.55 kg (9.6%) | 70 % | 690 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | Simcoe | 13 g | 60 min | 13.2 % |
| Aroma (end of boil) | Simcoe | 19 g | 30 min | 13.2 % |
| Aroma (end of boil) | Simcoe | 13 g | 10 min | 13.2 % |
| Aroma (end of boil) | Amarillo | 13 g | 10 min | 9.5 % |
| Aroma (end of boil) | Citra | 13 g | 10 min | 12 % |
| Dry Hop | Simcoe | 60 g | 3 day(s) | 13.2 % |
| Dry Hop | Amarillo | 60 g | 3 day(s) | 9.5 % |
| Dry Hop | Citra | 60 g | 3 day(s) | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale | Slant | 200 ml | Fermentis |