

#021 IBA v5

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **60**
- SRM **26.9**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **100 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **23.9 liter(s)**

Steps

- Temp **64 C**, Time **75 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **18.6 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **75 min** at **64C**
- Keep mash **10 min** at **76C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 4 kg (70.3%) | 79 % | 6 |
| Grain | Weyermann - Carafa III | 0.5 kg (8.8%) | 70 % | 1024 |
| Grain | Carahell | 0.5 kg (8.8%) | 77 % | 26 |
| Grain | Biscuit Malt | 0.32 kg (5.6%) | 79 % | 45 |
| Sugar | cukier | 0.37 kg (6.5%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 20 g | 60 min | 15.1 % |
| Aroma (end of boil) | Citra | 20 g | 20 min | 13.5 % |
| Aroma (end of boil) | Citra | 30 g | 10 min | 13.5 % |
| Aroma (end of boil) | Cascade | 20 g | 10 min | 8.1 % |
| Aroma (end of boil) | Cascade | 30 g | 5 min | 8.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 10 g | Fermentis |