

41 Black IPA

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **69**
- SRM **33.1**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **26.1 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **70 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **20 min** at **70C**
- Keep mash **0 min** at **78C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński | 5 kg (76.6%) | 80 % | 4 |
| Grain | Strzegom Pale Ale | 0.5 kg (7.7%) | 79 % | 6 |
| Grain | Carafa III | 0.5 kg (7.7%) | 70 % | 1034 |
| Grain | Biscuit Malt | 0.25 kg (3.8%) | 79 % | 45 |
| Grain | Strzegom Barwiący | 0.1 kg (1.5%) | 68 % | 1300 |
| Grain | Weyermann - Acidulated Malt | 0.1 kg (1.5%) | 80 % | 6 |
| Grain | Strzegom Karmel 150 | 0.08 kg (1.2%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------|--------|----------|------------|
| Boil | Sorachi Ace | 25 g | 60 min | 12.5 % |
| Boil | Sorachi Ace | 25 g | 45 min | 12.5 % |
| Boil | Sorachi Ace | 25 g | 15 min | 12.5 % |
| Boil | Sorachi Ace | 25 g | 0 min | 12.5 % |
| Dry Hop | Sorachi Ace | 50 g | 5 day(s) | 12.5 % |
| Dry Hop | Sorachi Ace | 50 g | 2 day(s) | 12.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------|
| FM52 Amerykański Sen | Ale | Slant | 300 ml | --- |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------------|--------|----------|--------|
| Fining | whirlfloc | 0.5 g | Boil | 10 min |
| Other | witamina A | 4 g | Bottling | --- |
| Water Agent | gips | 4 g | Mash | 60 min |