

## BIPA#1

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **20**
- SRM **21.3**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.6 liter(s)**
- Total mash volume **23.4 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **17.6 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount         | Yield | EBC  |
|-------|------------------------|----------------|-------|------|
| Grain | Briess - Pale Ale Malt | 3 kg (51.3%)   | 80 %  | 7    |
| Grain | Pilzneński             | 2 kg (34.2%)   | 81 %  | 4    |
| Grain | Pszeniczny             | 0.2 kg (3.4%)  | 85 %  | 4    |
| Grain | Strzegom Karmel 150    | 0.15 kg (2.6%) | 75 %  | 150  |
| Grain | Biscuit Malt           | 0.25 kg (4.3%) | 79 %  | 45   |
| Grain | Strzegom Barwiący      | 0.25 kg (4.3%) | 68 %  | 1300 |

### Hops

| Use for             | Name               | Amount | Time     | Alpha acid |
|---------------------|--------------------|--------|----------|------------|
| Boil                | Lublin (Lubelski)  | 20 g   | 60 min   | 4 %        |
| Boil                | Cascade            | 20 g   | 30 min   | 6 %        |
| Boil                | East Kent Goldings | 20 g   | 10 min   | 5.1 %      |
| Aroma (end of boil) | Cascade            | 25 g   | 0 min    | 6 %        |
| Dry Hop             | Cascade            | 50 g   | 4 day(s) | 6 %        |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|         |     |     |        |           |
|---------|-----|-----|--------|-----------|
| us - 05 | Ale | Dry | 11.5 g | fermentis |
|---------|-----|-----|--------|-----------|

## Notes

- Zasymp do wody 68 st. Słód barwiący dodany po przejściu próby jodowej przy podnoszeniu temperatury na wygrzew 76 st.  
*Oct 2, 2021, 8:55 AM*