

## BLACK IPA 14 Blg # 53

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **70**
- SRM **29.3**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

### Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

### Fermentables

| Type  | Name                             | Amount        | Yield | EBC |
|-------|----------------------------------|---------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt        | 5 kg (83.3%)  | 85 %  | 7   |
| Grain | Czekoladowy Castlemalting        | 0.4 kg (6.7%) | --- % | 900 |
| Grain | Słód Caramunich Typ II Weyermann | 0.4 kg (6.7%) | 73 %  | 120 |
| Grain | Carafa II                        | 0.2 kg (3.3%) | 70 %  | 812 |

### Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Zula     | 30 g   | 60 min | 8.3 %      |
| Boil                | Oktawia  | 45 g   | 45 min | 9 %        |
| Boil                | Puławski | 15 g   | 45 min | 8.9 %      |
| Aroma (end of boil) | Izabella | 58 g   | 0 min  | 5.1 %      |

### Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 300 ml | Safale     |