

BIPA

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **52**
- SRM **29.4**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **15.1 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|-----------------|--------|-----|
| Grain | BESTMALZ - Best Pilsen | 2.5 kg (67.1%) | 80.5 % | 4 |
| Grain | Żytni | 0.5 kg (13.4%) | 85 % | 8 |
| Grain | Bestmalz Carmel Pils | 0.15 kg (4%) | 75 % | 5 |
| Grain | Strzegom Karmel 600 | 0.1 kg (2.7%) | 68 % | 601 |
| Grain | Carafa II | 0.3 kg (8.1%) | 70 % | 812 |
| Sugar | Cukier brązowy | 0.125 kg (3.4%) | --- % | --- |
| Grain | Melanoiden Malt | 0.05 kg (1.3%) | 80 % | 39 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 15 g | 60 min | 15.5 % |
| Boil | Talus | 15 g | 20 min | 7.4 % |
| Boil | Talus | 10 g | 5 min | 7.4 % |
| Boil | Talus | 25 g | 0 min | 7.4 % |
| Dry Hop | Talus | 50 g | 4 day(s) | 7.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |