

BIPA

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **87**
- SRM **28.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **15.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **20.8 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński | 2.8 kg (67.3%) | 80 % | 4 |
| Grain | Carafa III | 0.29 kg (7%) | 70 % | 1034 |
| Grain | Strzegom Monachijski typ II | 0.29 kg (7%) | 79 % | 22 |
| Grain | płatki jęczmienne | 0.29 kg (7%) | 60 % | 4 |
| Grain | Weyermann - Carapils | 0.29 kg (7%) | 78 % | 4 |
| Grain | Pszeniczny | 0.2 kg (4.8%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------|--------|----------|------------|
| Boil | Magnum | 12 g | 60 min | 11 % |
| Whirlpool | Cascade | 50 g | 45 min | 7.8 % |
| Whirlpool | Amarillo | 50 g | 45 min | 9.9 % |
| Dry Hop | Centennial | 50 g | 5 day(s) | 10.5 % |
| Dry Hop | Azacca | 50 g | 5 day(s) | 11 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 200 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|----------------------------|--------|---------|-------|
| Other | jęczmień palony jako barwa | 200 g | Boil | 5 min |