

BLACK IIPA

- Gravity **22 BLG**
- ABV **9.9 %**
- IBU **113**
- SRM **36.8**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|------|
| Grain | Strzegom Pale Ale | 5 kg (71.4%) | 79 % | 6 |
| Grain | Carafa III | 0.5 kg (7.1%) | 70 % | 1034 |
| Grain | Carahell | 0.5 kg (7.1%) | 77 % | 26 |
| Grain | Strzegom Monachijski typ II | 1 kg (14.3%) | 79 % | 22 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Amarillo | 28 g | 60 min | 9.5 % |
| Boil | Columbus/Tomahawk/Zeus | 30 g | 60 min | 15.5 % |
| Boil | Cascade | 35 g | 30 min | 6 % |
| Boil | Citra | 25 g | 30 min | 12 % |