

#1 Piano Black Stout

- Gravity **13.6 BLG**
- ABV ---
- IBU **45**
- SRM **31.8**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **23.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|---------------|-------|------|
| Grain | Strzegom Pale Ale | 4 kg (87%) | 79 % | 6 |
| Grain | Strzegom Czekoladowy 1200 | 0.4 kg (8.7%) | 68 % | 1202 |
| Grain | Karmelowy Czerwony | 0.2 kg (4.3%) | 75 % | 59 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil | Iunga | 15 g | 60 min | 11 % |
| Boil | Sybilla | 30 g | 40 min | 7 % |
| Whirlpool | Sybilla | 30 g | 10 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |