

#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