

Stout ZP

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **19**
- SRM **31.9**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **25.4 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 5 kg (78.7%) | 80 % | 5 |
| Grain | Strzegom Karmel 150 | 1 kg (15.7%) | 75 % | 150 |
| Grain | Strzegom Barwiący | 0.35 kg (5.5%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-------------------|--------|--------|------------|
| Boil | Magnat | 15 g | 60 min | 11.2 % |
| Whirlpool | Lublin (Lubelski) | 30 g | 10 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |