

FES

- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **38**
- SRM **31.9**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|--------------|-------|-----|
| Grain | Strzegom Pale Ale | 4 kg (80%) | 79 % | 6 |
| Grain | crystal 160 | 0.15 kg (3%) | 70 % | 160 |
| Grain | Weyermann - Chocolate Wheat | 0.15 kg (3%) | 74 % | 788 |
| Grain | Jęczmień palony | 0.1 kg (2%) | 55 % | 985 |
| Grain | Płatki pszeniczne | 0.2 kg (4%) | 85 % | 3 |
| Grain | Weyermann - Carafa II | 0.15 kg (3%) | 70 % | 837 |
| Grain | Słód pszeniczny Bestmalz | 0.25 kg (5%) | 82 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | marynka | 30 g | 60 min | 8.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|--------|---------|------------|
| WLP090 - San Diego Super Yeast | Ale | Liquid | 1000 ml | White Labs |