

FES

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **35**
- SRM **34.1**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **46 liter(s)**
- Trub loss **5 %**
- Size with trub loss **48.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **58.2 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **40.5 liter(s)**
- Total mash volume **54 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|---------------|-------|-----|
| Grain | Castle Pale Ale | 5 kg (37%) | 80 % | 8 |
| Grain | Strzegom Pale Ale | 5 kg (37%) | 79 % | 6 |
| Grain | Strzegom Karmel 300 | 0.5 kg (3.7%) | 70 % | 299 |
| Grain | Caraaroma | 0.5 kg (3.7%) | 78 % | 400 |
| Grain | Weyermann - Carawheat | 1 kg (7.4%) | 77 % | 97 |
| Grain | Strzegom Czekoladowy 400 | 0.5 kg (3.7%) | 68 % | 400 |
| Grain | Czekoladowy | 0.5 kg (3.7%) | 60 % | 788 |
| Grain | Jęczmień palony | 0.5 kg (3.7%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 100 g | 30 min | 11 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|------|--------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale | Liquid | 25 ml | Fermentum Mobile |