

# 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 |