

Dark F

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **32**
- SRM **24.5**
- Style **American Stout**

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 **3.5 liter(s) / kg**
- Mash size **23.9 liter(s)**
- Total mash volume **30.8 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 4 kg (58.5%) | 80 % | 5 |
| Grain | Pszeniczny | 1 kg (14.6%) | 85 % | 4 |
| Grain | Strzegom Karmel 300 | 0.3 kg (4.4%) | 70 % | 299 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (7.3%) | 75 % | 30 |
| Grain | Carafa II | 0.34 kg (5%) | 70 % | 812 |
| Grain | Strzegom Monachijski typ II | 0.2 kg (2.9%) | 79 % | 22 |
| Grain | Viking Melanoidynowy | 0.2 kg (2.9%) | 75 % | 60 |
| Grain | Strzegom Monachijski typ I | 0.3 kg (4.4%) | 79 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil | Marynka | 25 g | 60 min | 10 % |
| Boil | Marynka | 10 g | 10 min | 10 % |
| Boil | Sybilla | 20 g | 10 min | 3.5 % |
| Boil | Saaz (Czech Republic) | 20 g | 10 min | 4.5 % |
| Aroma (end of boil) | Saaz (Czech Republic) | 20 g | 0 min | 4.5 % |
| Aroma (end of boil) | Centennial | 20 g | 0 min | 10.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 200 ml | Fermentis |