

## FES z karobem

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **36**
- SRM **29.1**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **1000 liter(s)**
- Trub loss **5 %**
- Size with trub loss **1050 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **1320 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **900 liter(s)**
- Total mash volume **1200 liter(s)**

### Fermentables

| Type  | Name                             | Amount       | Yield | EBC |
|-------|----------------------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt             | 150 kg (50%) | 80 %  | 5   |
| Grain | Monachijski                      | 75 kg (25%)  | 80 %  | 16  |
| Grain | Płatki owsiane z łuską           | 30 kg (10%)  | 85 %  | 3   |
| Grain | Żytni czekoladowy Weyermann      | 20 kg (6.7%) | 55 %  | 750 |
| Grain | Słód Caramunich Typ II Weyermann | 15 kg (5%)   | 73 %  | 120 |
| Grain | Jęczmień palony                  | 10 kg (3.3%) | 55 %  | 985 |

### Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 750 g  | 60 min | 15.5 %     |
| Boil    | Marynka                | 1000 g | 30 min | 10 %       |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 500 g  | Safale     |

### Extras

| Type   | Name          | Amount  | Use for   | Time     |
|--------|---------------|---------|-----------|----------|
| Flavor | Strąki karobu | 45000 g | Secondary | 7 day(s) |