

## Podstawa do świątecznego

- Gravity **20.9 BLG**
- ABV **9.3 %**
- IBU **30**
- SRM **18.6**
- Style **Traditional Bock**

### Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **57 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **1.5 liter(s) / kg**
- Mash size **27.8 liter(s)**
- Total mash volume **46.3 liter(s)**

### Fermentables

| Type  | Name                        | Amount        | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Monachijski typ I  | 4 kg (21.6%)  | 79 %  | 16  |
| Grain | Viking Pale Ale malt        | 4 kg (21.6%)  | 80 %  | 5   |
| Grain | Strzegom Wiedeński          | 4 kg (21.6%)  | 79 %  | 10  |
| Grain | Strzegom Monachijski typ II | 2 kg (10.8%)  | 79 %  | 22  |
| Grain | Viking melanoidynowy        | 1.5 kg (8.1%) | 75 %  | 60  |
| Grain | Biscuit Malt                | 1.5 kg (8.1%) | 79 %  | 45  |
| Grain | Strzegom Karmel 150         | 1 kg (5.4%)   | 75 %  | 150 |
| Grain | Weyermann Specjal W         | 0.5 kg (2.7%) | 68 %  | 300 |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Summit            | 30 g   | 60 min | 18 %       |
| Boil    | Lublin (Lubelski) | 30 g   | 5 min  | 4.1 %      |
| Boil    | Oktawia           | 30 g   | 60 min | 9.2 %      |

### Yeasts

| Name           | Type  | Form  | Amount | Laboratory |
|----------------|-------|-------|--------|------------|
| saflager s-189 | Lager | Slant | 200 ml | ---        |

### Extras

| Type  | Name         | Amount | Use for | Time   |
|-------|--------------|--------|---------|--------|
| Spice | Cynamon kora | 5 g    | Boil    | 15 min |
| Spice | Anyż         | 3 g    | Boil    | 15 min |

|        |              |     |      |        |
|--------|--------------|-----|------|--------|
| Spice  | Goździki     | 5 g | Boil | 15 min |
| Fining | Whirlflock T | 2 g | Boil | 15 min |