

# święteczne???

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **38**
- SRM **22.1**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **19.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.1 liter(s)**

## Fermentables

| Type  | Name                | Amount        | Yield | EBC  |
|-------|---------------------|---------------|-------|------|
| Grain | Pilzneński          | 3 kg (62.5%)  | 81 %  | 4    |
| Grain | Monachijski         | 1 kg (20.8%)  | 80 %  | 16   |
| Grain | Płatki owsiane      | 0.4 kg (8.3%) | 85 %  | 3    |
| Grain | Strzegom Karmel 600 | 0.1 kg (2.1%) | 68 %  | 601  |
| Sugar | Cane (Beet) Sugar   | 0.1 kg (2.1%) | 100 % | 0    |
| Grain | Carafa II           | 0.1 kg (2.1%) | 70 %  | 812  |
| Grain | Carafa III          | 0.1 kg (2.1%) | 70 %  | 1034 |

## Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Galaxy | 20 g   | 60 min | 15 %       |

## Yeasts

| Name     | Type | Form  | Amount | Laboratory |
|----------|------|-------|--------|------------|
| hot head | Ale  | Slant | 500 ml | Omega      |

## Extras

| Type  | Name               | Amount | Use for | Time   |
|-------|--------------------|--------|---------|--------|
| Spice | Cynamon            | 5 g    | Boil    | 10 min |
| Spice | Ekstrakt waniliowy | 10 g   | Boil    | 10 min |
| Spice | Skórka pomarańczy  | 20 g   | Boil    | 10 min |
| Spice | Gozdziki           | 5 g    | Boil    | 10 min |
| Spice | Śliwki suszone     | 200 g  | Boil    | 10 min |
| Spice | Kardamon           | 5 g    | Boil    | 10 min |