

# Porter świąteczny

- Gravity **23.1 BLG**
- ABV **10.5 %**
- IBU **43**
- SRM **40.5**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **120 min**
- Evaporation rate **12 %/h**
- Boil size **14.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg (74.5%)	80 %	4
Grain	Płatki owsiane	0.5 kg (10.6%)	60 %	3
Grain	Strzegom Karmel 600	0.2 kg (4.3%)	68 %	600
Grain	Strzegom Karmel 300	0.3 kg (6.4%)	70 %	300
Grain	Fawcett - Pszeniczny Czekoladowy	0.1 kg (2.1%)	73 %	1001
Grain	Strzegom Czekoladowy ciemny	0.1 kg (2.1%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %

## Extras

Type	Name	Amount	Use for	Time
Spice	pomarańcze	30 g	Boil	10 min