

# śłodko gorzkie

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **23**
- SRM **37.1**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **23.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **22.9 liter(s)**

## Steps

- Temp **68 C**, Time **45 min**
- Temp **76 C**, Time **10 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **17.8 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **45 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **10.7 liter(s)** of **76C** water or to achieve **23.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1.5 kg (29.4%)	79 %	6
Grain	Jęczmień palony	0.1 kg (2%)	55 %	985
Grain	Strzegom Czekoladowy jasny	0.5 kg (9.8%)	68 %	400
Grain	Strzegom Karmel 600	0.4 kg (7.8%)	68 %	601
Grain	Strzegom Monachijski typ I	1.5 kg (29.4%)	79 %	16
Grain	Strzegom Barwiący	0.1 kg (2%)	68 %	1300
Grain	Strzegom pszeniczny	1 kg (19.6%)	81 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equinox	30 g	15 min	13.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	laktoza	300 g	Boil	20 min