

# Sam chmiel, sam sól, Samson

- Gravity **14 BLG**
- ABV ---
- IBU **44**
- SRM **44**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **67 C**, Time **50 min**
- Temp **78 C**, Time **5 min**
- Temp **68 C**, Time **1 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **1 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4.5 kg (90%)	79 %	6
Grain	Jęczmień palony	0.25 kg (5%)	55 %	985
Grain	Strzegom Czekoladowy 1200	0.25 kg (5%)	68 %	1202

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Goldings	30 g	45 min	6.2 %
Boil	Goldings	30 g	30 min	6.2 %
Boil	Goldings	30 g	10 min	6.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	30 ml	Fermentum Mobile