

# Chmielowe pełne

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **13**
- SRM **6.8**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

## Steps

- Temp **51 C**, Time **20 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **17.3 liter(s)** of strike water to **56.2C**
- Add grains
- Keep mash **20 min** at **51C**
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **72C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (87%)	81 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (8.7%)	79 %	16
Grain	Strzegom Karmel 150	0.25 kg (4.3%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Lublin (Lubelski)	65 g	15 min	4 %
Dry Hop	Lublin (Lubelski)	15 g	14 day(s)	4 %
Dry Hop	Cascade PL	15 g	14 day(s)	5.2 %
Dry Hop	Chinook	15 g	14 day(s)	13 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa - Pure Ale Yeast 7	Ale	Dry	10 g	Gozdawa