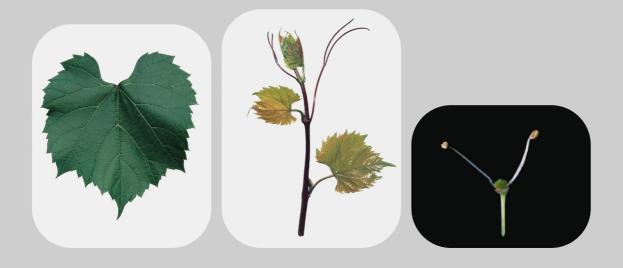


# 4010 CI 4010 Castel



#### Genetic origin

This variety results from the crossbreeding of *Vitis riparia* cv. Grand glabre and Aramon Rupestris Ganzin number 1.

#### Name of the variety in France (and usual name)

4010 CI

#### Breeder\/breeder and year obtained

Pierre Castel

Estimated surface area of the French vineyard grafted with this rootstock and main regions of use

600 ha . Aquitaine.

#### Elements of ampelographic description

- The identification is based on:
- the tip of the young shoot that is half open, with no or a very low density of prostrate hairs,
- the bronzed young leaves
- the shoots with a smooth surface and a moderate to strong anthocyanin coloration,
- the involute, kidney-shaped adult leaves, with an open brace-shaped petiole sinus,
- the male flowers,
- the browny red to purplish woody shoots with no erect and prostrate hairs.

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### **Evolution of cultivated areas in France**

Year ha
10551
19551
19651
19752
19852
19951
20050.5
20150.5

### **Genetic profile**

MicrosatelliteVVS2		VVMD5	VVMD7	VVMD27	VRZAG62	VRZAG79	VVMD25	VVMD28	VVMD32
Allele 1	135	232	243	236	188	256	236	235	249
Allele 2	159	261	251	236	190	256	236	243	249

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#### **Resistance to soil pests**

The tolerance of 4010 Cl to the root form of phylloxera is moderate. It must therefore be planted under unfavorable conditions for this pest, but its resistance to *Meloidogyne arenaria* and *Meloidogyne incognita* nematodes is good.

#### Aptitudes for vegetative multiplication

4010 Cl wood production is moderate (30 000 to 40 000 m/ha) but has good cutting and grafting capacities.

#### **Clonal selection in France**

In France, the 2 certified 4010 Cl clones carry the numbers 243 and 244. The clone 243 is multiplied on 50 ares of mother vines producing certified material, in 2017.

Datas are extracted from: Les chiffres de la pépinière viticole, 2017, Datas and assessment of FranceAgriMer, may 2018.

#### **Bibliographic references**

- Catalogue des variétés et clones de vigne cultivés en France. Collectif, 2007, Ed. IFV, Le Grau-du-Roi, France.
- Documentary collections of the Centre de Ressources Biologiques de la Vigne de Vassal-Montpellier, INRAE Montpellier SupAgro, Marseillan, France.
- Cépages et vignobles de France, tome 1. P. Galet, 1988, Ed. Dehan, Montpellier, France.



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#### Adaptation to the environment

4010 Cl tolerance towards chlorosis is low and it only resists up to 6% of "active" limestone. This rootstock poorly absorbs magnesium. It is adapted to acidic soils, with very little or no limestone, rather deep, that can be compact but with a sufficient water input.

## Interaction with the graft and production objectives

4010 Cl gives a fairly high vigor to the grafts and tends to favor their fertility. However, it also favors the earliness of the vegetative growing cycles.