saturated

Canonical name	Saturated
Date of creation	2013-03-22 12:30:17
Last modified on	2013-03-22 12:30:17
Owner	drini (3)
Last modified by	drini (3)
Numerical id	4
Author	drini (3)
Entry type	Definition
Classification	msc 16U20
Related topic	MultiplicativeSet
Related topic	Ideal
Related topic	PrimeIdeal
Related topic	IntegralDomain
Related topic	Ring

Let S be multiplicative subset of A. We say that S is a *saturated* if

$$ab \in S \Rightarrow a, b \in S.$$

When A is an integral domain, then S is saturated if and only if its complement $A \backslash S$ is union of prime ideals.