European Gemological Laboratory Defines SI_3

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Over the past several years, diamond dealers have been buying and selling diamonds using the clarity grade "SI_3". Even though there has been no written definition of the grade, we find that SI_3 has been used consistently to describe lower SI_2 and higher I_1 clarity grade diamonds. We see three possible reasons for the creation and wide use of the SI_3 grade:

1. Gemological laboratories are seeing and grading more moderately included diamonds.
2. The laboratory grading of moderately included diamonds appears to have become more subjective, drifting slightly lower.
3. The price difference between SI_2 and I_1 on published pricing guides has become significant enough to warrant an intermediate price category. In essence, the diamond industry itself has determined the need and created the SI_3 category. Without disturbing the established system, the SI_3 clarity grade works.

Background

Over the past fifteen years, we have witnessed an increase in the number of moderately included diamonds being submitted for laboratory grading (See *Gems & Gemology*, Summer 1991, *Proposal to Update 'Slightly Imperfect'*, T Tashey). Diamond graders are reluctant to place a stone into the SI_2 or I_1 category, since 'Imperfect' (or 'almost Imperfect' with SI_2) has negative connotations. This has created a 'drifting' in the SI category, changing boundaries between SI_1, SI_2 and I_1 significantly from where they were fifteen years ago.

In fact, GIA has recently been addressing this issue (see *IGS Proceedings*, '91, *'Clarity Grading Diamonds*', Schwartz and *Alumni Association in Focus*, Fall '91, *'Eye-Visible Inclusions and Clarity Grading'*, Lucey, Schwartz and Roskin). According to GIA, the grading of moderately included diamonds, especially in larger sizes and fancy shapes, should be much more subjective than the original teaching rules. With these factors in mind, it has therefore become very important for us to expand our thinking;

1. with regards to the actual clarity grading of moderately included stones, and
2. with regards to the I_1 addition of the SI_3 clarity grade.

Grading SI_3

Put simplistically and more appropriately, diamonds graded as SI_3 are those which would normally have been graded as a very low SI_2, almost I_1. (SI_3 is not, as some would hope, a good-looking I_1). To help even-out the grade ranges so SI_3 does not lessen the importance of SI_2, we have tightened up the I_1 range just slightly. What we should have graded as a very low SI_1, is now an SI_2.

SI grades are used to describe stones with small inclusions which are usually obvious when viewed under binocular magnification at 10x or with a 10x corrected loupe. Stones with these grades may sometimes have inclusions which are difficult to see with the unaided eye. As you know, the size, nature, location and number of inclusions help create your first impression for assigning a clarity grade. Allowing for location and nature, we have noticed that certain sized single inclusions fall within particular clarity grades.

For example, a typical SI_1 sized inclusion, measures approximately .2 - .4 mm, SI_2 inclusions in general range in size from .3 - .5 mm and SI_3 sized inclusions might measure from .4 - .6mm. Obviously, an SI_3 will typically have more larger inclusions than the SI_2. Keeping these points in mind, we have found that typical SI_3 stones contain the following inclusions: Approximately three or more inclusions (crystals or feathers) which individually might be graded as SI_2, but because of their number, would be graded SI_3. Possibly six or seven SI_1 type inclusions may be graded as SI_3, where only three to five of these inclusions might be graded as SI_2. Heavy inter-growth (or twinning wisps) which may appear to encompass the entire width and length of the stone. Reflections of inclusions are important to note, as this too will affect the grade. If you have any number of SI_2 inclusions, crystals, inter-growth, feathers, or any combination which reflects, this may also call for the SI_3 grade.

Precedent

While suggesting that SI_3 be added to the clarity grading scale, it is important to note that GIA has already made two additions to the original sacale. In 1952, each clarity grade, except for Flawless, was divided into two categories: VVS_1 - VVS_2, VS_1 – VS_2, SI_1 – SI_2 and I_1 - I_2. The first addition came in the 1960s. As the industry began using lower quality stones for jewelry purposes, the GIA expanded the Imperfect range to include I3. The second addition came in the 1970s when Flawless diamonds were priced much higher than VVS_1 goods.

Flawless diamonds varied widely from one stone to another, as polish marks and blemishes were literally ignored. To justify the price differences, and to tighten this wide Flawless range, the Internally Flawless grade was developed. This gave Flawless a more appropriate position, with I.F. becoming the intermediate grade and value between Flawless and VVS_1. With the precedent of I_3 and I.F., adding SI_3 is the next logical step, adapting the system once again to what the trade has been using and meld it into the already established grading system without creating new standards or rules. What we hope to accomplish, as the original system has done so far, is to give all of us a better way to communicate the quality (and hence, the price) of a diamond.

In Closing

We wish to emphasize that we are not trying to break from tradition. As GIA has done in the past, we are merely trying to enhance the clarity grading scale we have used since the 50's to effectively deal with the problems we are facing in the 90's. Just as we needed I_3 and the Internally Flawless, the trade, and now the EGL Los Angeles laboratory, feel that SI_3 is the next logical addition into our diamond grading scale.